

TRABAJO FINAL DE GRADO

Grado en Ingeniería Electrónica Industrial y Automática

**SUPERVISIÓN, CONTROL Y SIMULACIÓN DE UN PROCESO
DE GENERACIÓN DE ENERGÍA**



Volumen II

Anexos

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Convocatoria: Octubre 2018



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1. Anexos

1.1. Programa PLC

CONTROLLER TAGS

TFG - Controller Tag Listing
TFG (Controller)

Page 1

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

Show: All Tags
Sort by: Name

Name	Data Type	Description
AI01	REAL	
AI02	REAL	
AI03	REAL	
AI04	REAL	
AI05	REAL	
AI06	REAL	
AI07	REAL	
AI08	REAL	
AI09	REAL	
AI10	REAL	
AI11	REAL	
AI12	REAL	
AI13	REAL	
AI14	REAL	
AI15	REAL	
AI16	REAL	
AO01	REAL	
AO02	REAL	
AO03	REAL	
BC_01	M	MOTOR SIMPLE
BC_02	M	MOTOR SIMPLE
BC_03	M	MOTOR SIMPLE
BC_04	M	MOTOR SIMPLE
Bit_Paro	BOOL	
CC_01	CCO	COMPRESOR CENTRÍFUGO (SOPLADOR)
CICLO	BOOL	
COM_OK	BOOL	
COND_INI	BOOL	
COOL_OK	BOOL	
DI0	DINT	
DI1	DINT	
DI2	DINT	
DO0	DINT	
DO1	DINT	
DO2	DINT	
FAN	M	MOTOR SIMPLE

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TFG - Controller Tag Listing
TFG (Controller)

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG_ACD

Name	Data Type	Description
FCV_01	FCV	VÁLVULA REGULADORA
FCV_02	FCV	VÁLVULA REGULADORA
FCV_03	FCV	VÁLVULA REGULADORA
FIT_01	IT	TRANSMISOR INDICADOR
FIT_02	IT	TRANSMISOR INDICADOR
FIT_03	IT	TRANSMISOR INDICADOR
FIT_04	IT	TRANSMISOR INDICADOR
FIT_05	IT	TRANSMISOR INDICADOR
FIT_06	IT	TRANSMISOR INDICADOR
G_01	G	GENERADOR
LIT_01	IT	TRANSMISOR INDICADOR
Local:2:C	AB:1756_MODULE:C:0	
Local:2:I	AB:1756_MODULE_DINT_8B ytes:I:0	
Local:2:O	AB:1756_MODULE_DINT_4B ytes:O:0	
MARCHA	BOOL	
OIL_OK	BOOL	
OIT_01	IT	TRANSMISOR INDICADOR
PARO	BOOL	
PID_Aire	PID	
PID_Biomasa	PID	
PID_SP_AIRE	REAL	
PID_SP_CALDERA	REAL	
PID_SP_VAPOR	REAL	
PID_Vapor	PID	
PIT_01	IT	TRANSMISOR INDICADOR
RESET	BOOL	
Siempre_OFF	BOOL	
Sistema_Armado	BOOL	
Sistema_Auto	BOOL	
SP_SCADA_AIRE	STRING	
SP_SCADA_BIOMASA	STRING	
SP_SCADA_VAPOR	STRING	
T_01	T	TURBINA
T_Lectura_Consignas	TIMER	
TTT_01	IT	TRANSMISOR INDICADOR

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TFG - Controller Tag Listing
TFG (Controller)

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Name	Data Type	Description
TTT_02	IT	TRANSMISOR INDICADOR
V_01	V	VÁLVULA TODO/NADA
V_02	V	VÁLVULA TODO/NADA
V_03	V	VÁLVULA TODO/NADA
V_04	V	VÁLVULA TODO/NADA
V_05	V	VÁLVULA TODO/NADA
V_06	V	VÁLVULA TODO/NADA
W_Grafcet	INT	W_GRAFCET
W_Grafcet.0	BOOL	ETAPA 0
W_Grafcet.1	BOOL	ETAPA 1
W_Grafcet.2	BOOL	ETAPA 2
W_Grafcet.3	BOOL	ETAPA 3
W_Grafcet.4	BOOL	ETAPA 4
W_Grafcet.5	BOOL	ETAPA 5
W_Grafcet.6	BOOL	ETAPA 6
W_Grafcet.7	BOOL	ETAPA 7
W_Grafcet.8	BOOL	ETAPA 8
W_Grafcet.9	BOOL	ETAPA 9
W_Grafcet.10	BOOL	ETAPA 10
W_Grafcet.11	BOOL	ETAPA 11
W_Grafcet.12	BOOL	ETAPA 12
W_Grafcet.13	BOOL	ETAPA 13
W_Grafcet.14	BOOL	ETAPA 14
W_Grafcet.15	BOOL	ETAPA 15
W_Grafcet_Paro	DINT	

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1.1.1. Programa Principal

PROGRAM TAGS

TFG - Program Tag Listing
TFG (Controller)Page 1
20/09/2018 12:47:38
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACDShow: All Tags
Sort by: Name

Name	Data Type	Description
FCV	FCV	VALVULA REGULADORA
FCV_AUX_POS	REAL	
FCV_INDEX	BOOL	
IT	IT	TRANSMISOR INDICADOR
IT_INDEX	BOOL	
M	M	MOTOR SIMPLE
M_INDEX	BOOL	
T_01_HRUNNING_OK	BOOL	
T_01_HTOTAL_OK	BOOL	
T_HRUNNING_OK	BOOL	
T_HTOTAL_OK	BOOL	
V	V	VÁLVULA TODO/NADA
V_INDEX	BOOL	
X_MINS_AUX	REAL	

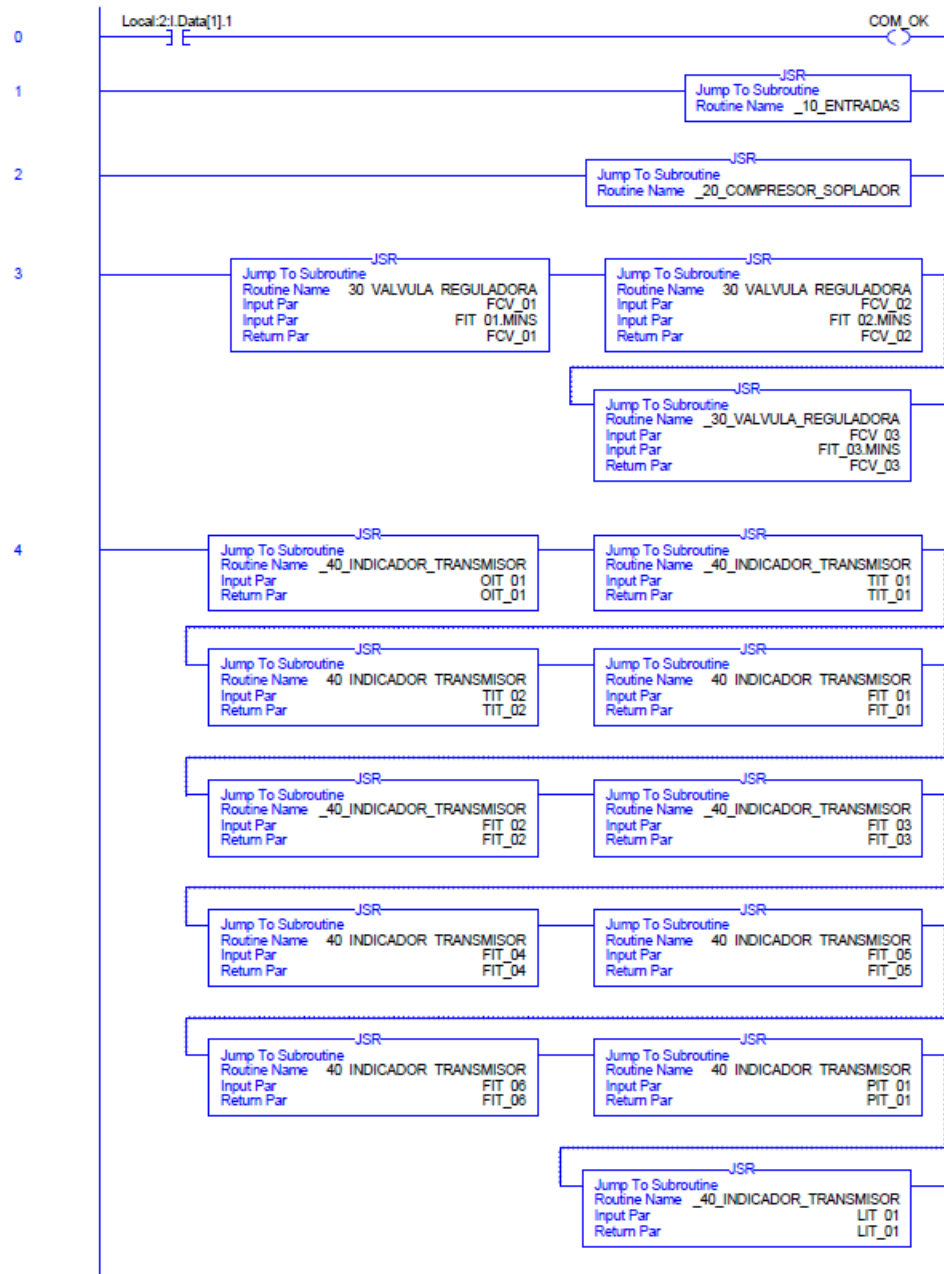
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MAIN ROUTINE

MainRoutine - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 10

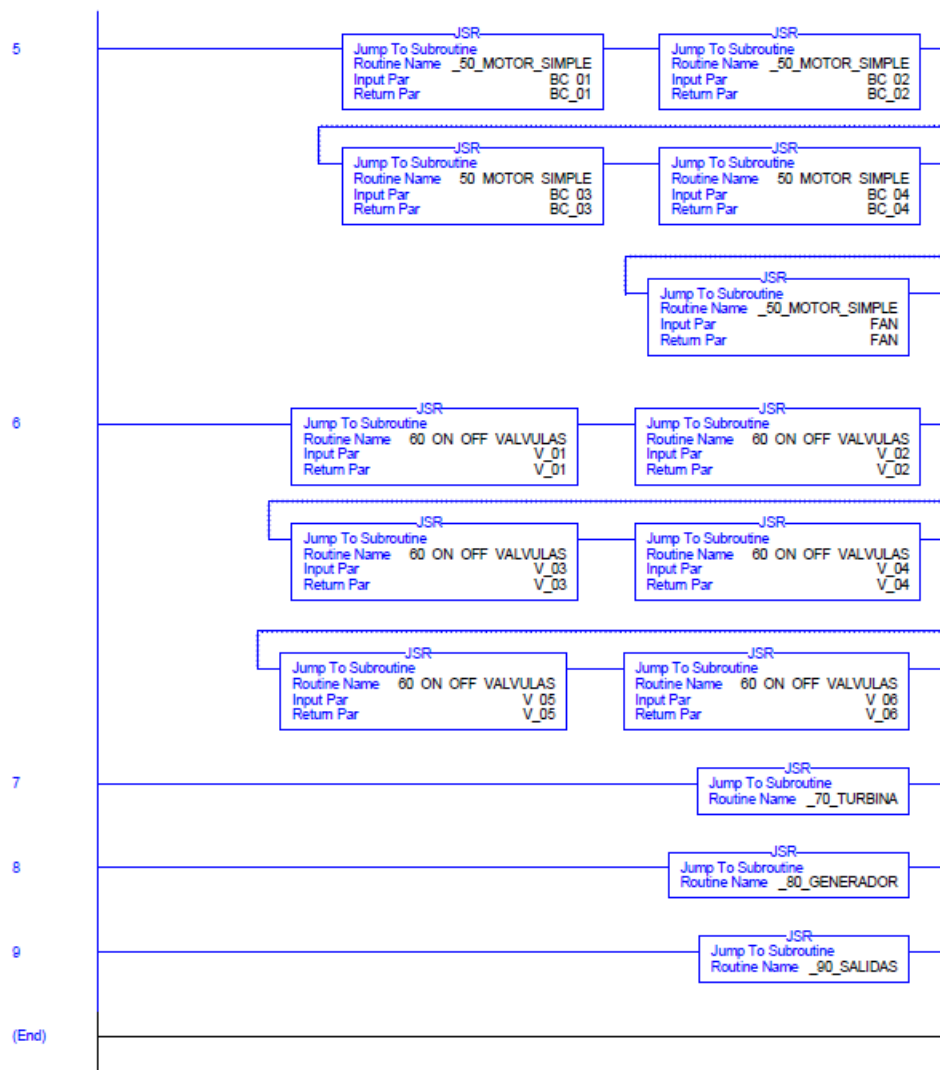
Page 1
19/09/2018 20:31:00
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG-ACD



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MainRoutine - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 10

Page 2
19/09/2018 20:31:08
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



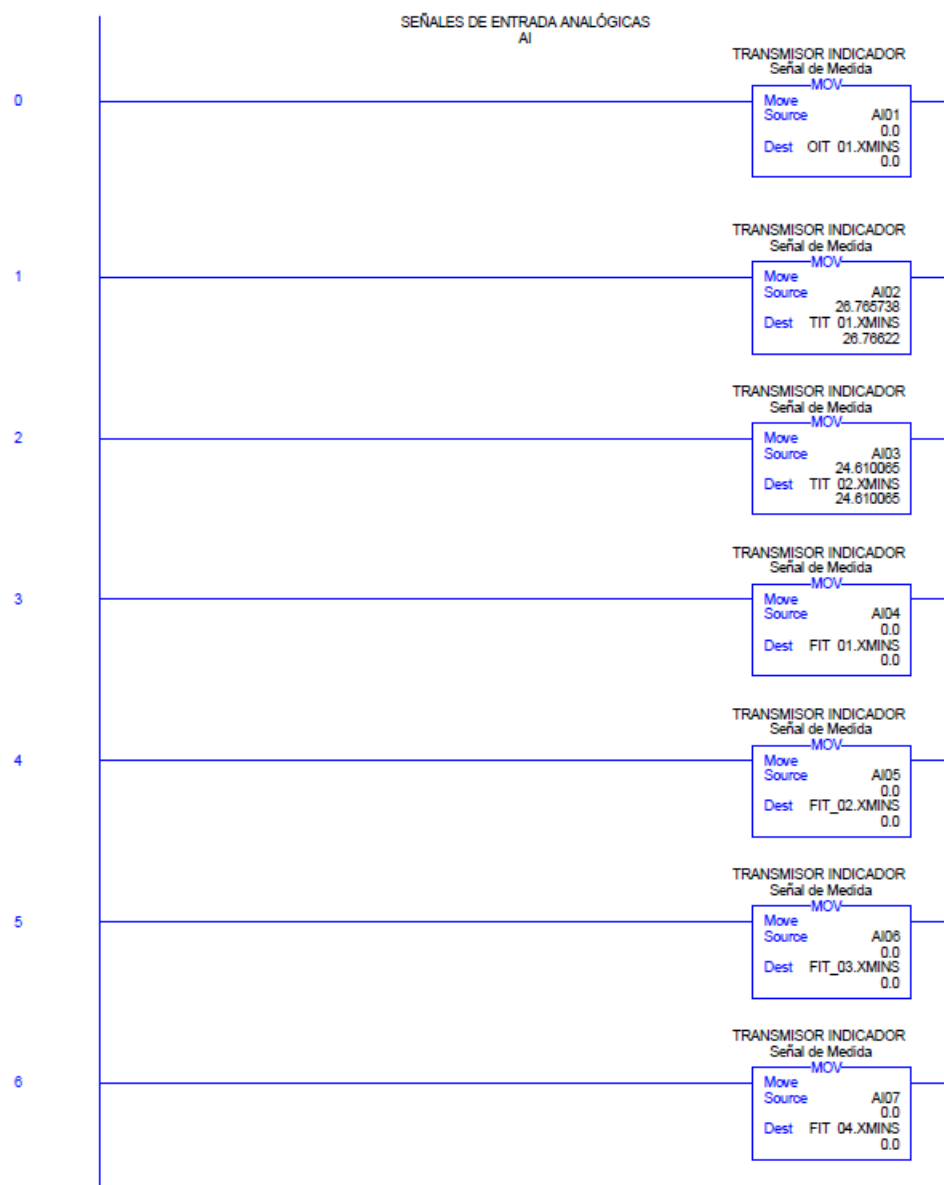
RSLogix 5000



ENTRADAS

_10_ENTRADAS - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 66

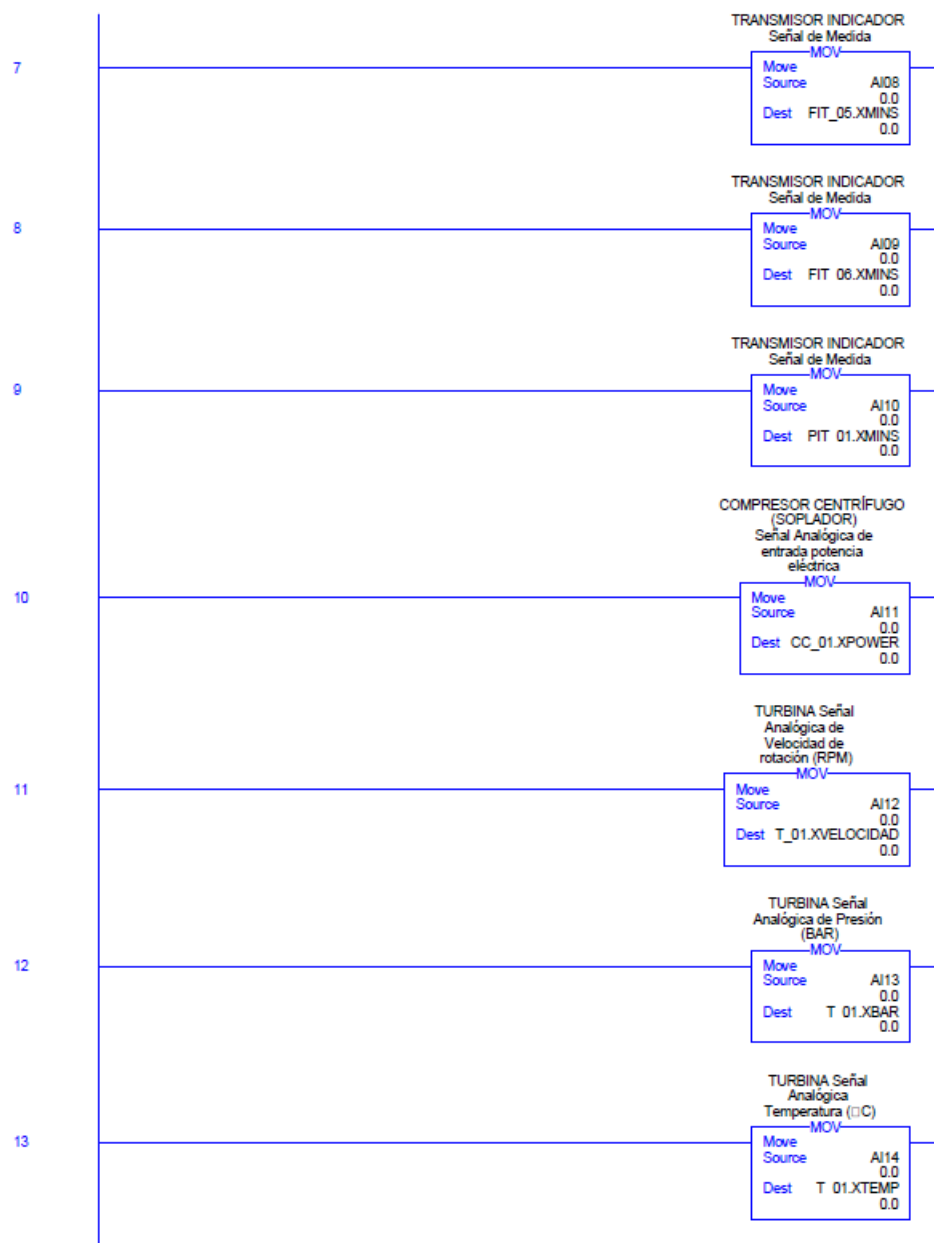
Page 1
19/09/2018 20:31:58
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG-ACD



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_10_ENTRADAS - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 66

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19/09/2018 20:32:05
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_10_ENTRADAS - Ladder Diagram

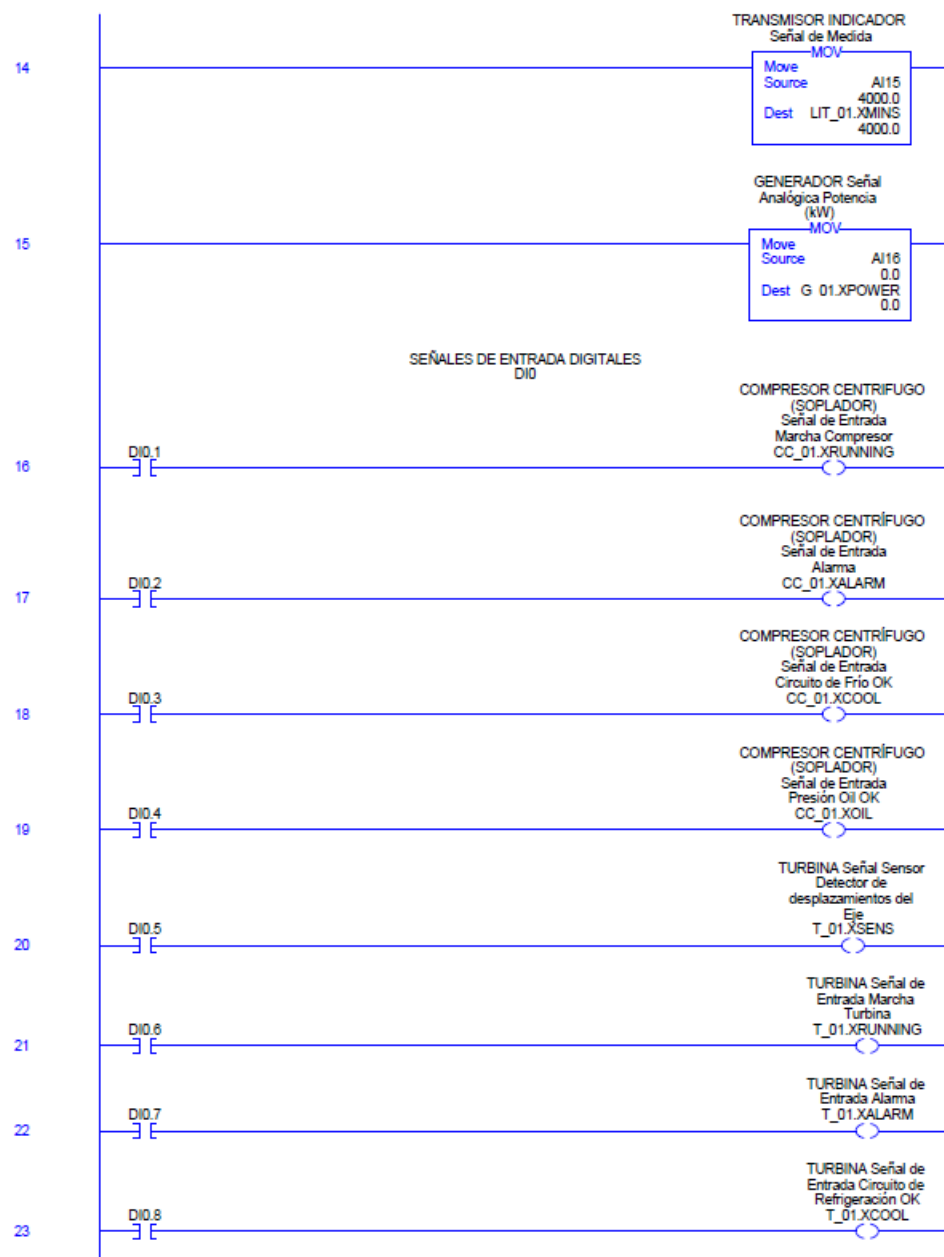
TFG:MainTask:MainProgram

Total number of rungs in routine: 66

Page 3

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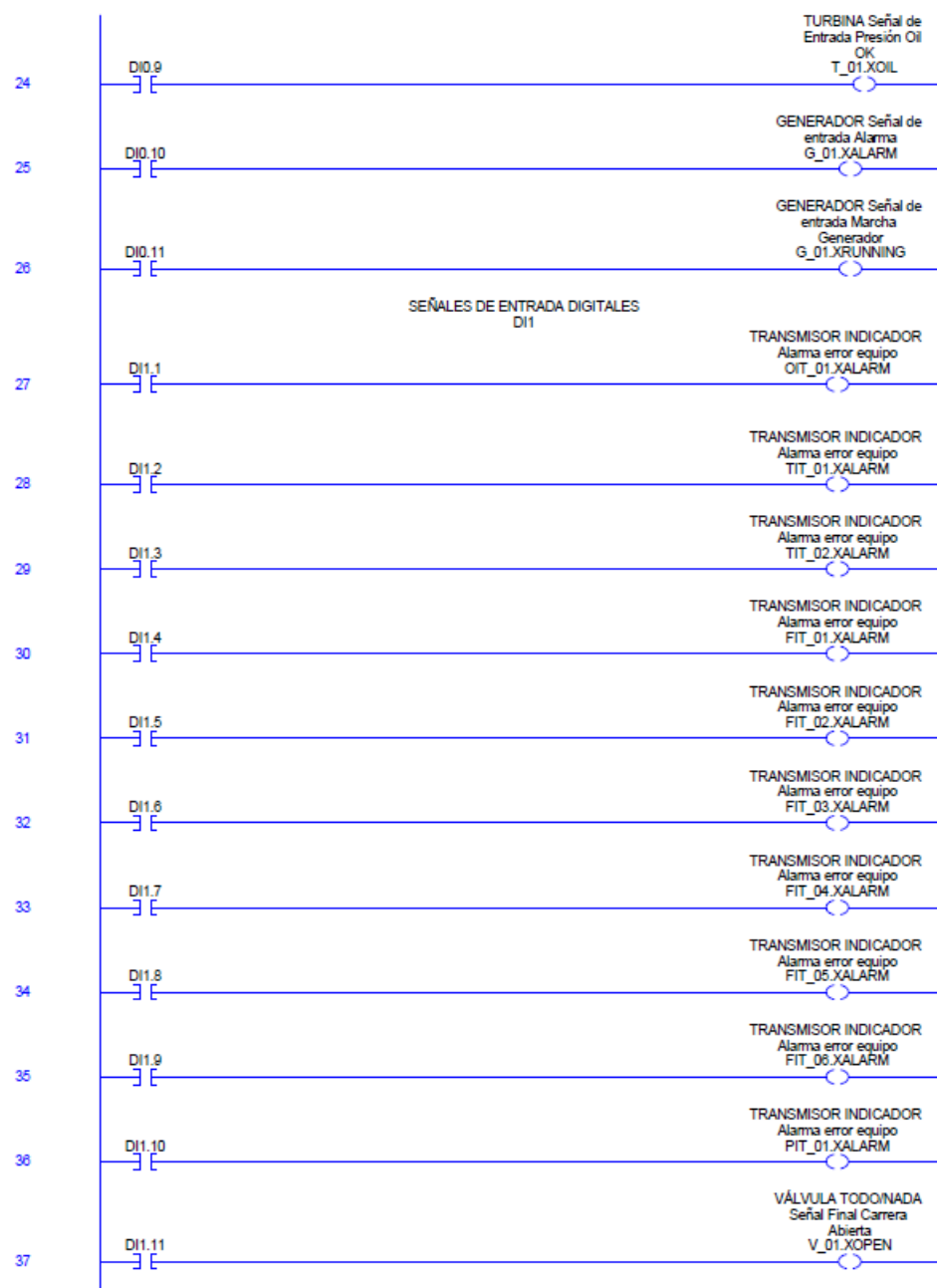
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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_10_ENTRADAS - Ladder Diagram
TFG-MainTask:MainProgram
Total number of rungs in routine: 66

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_10_ENTRADAS - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 66

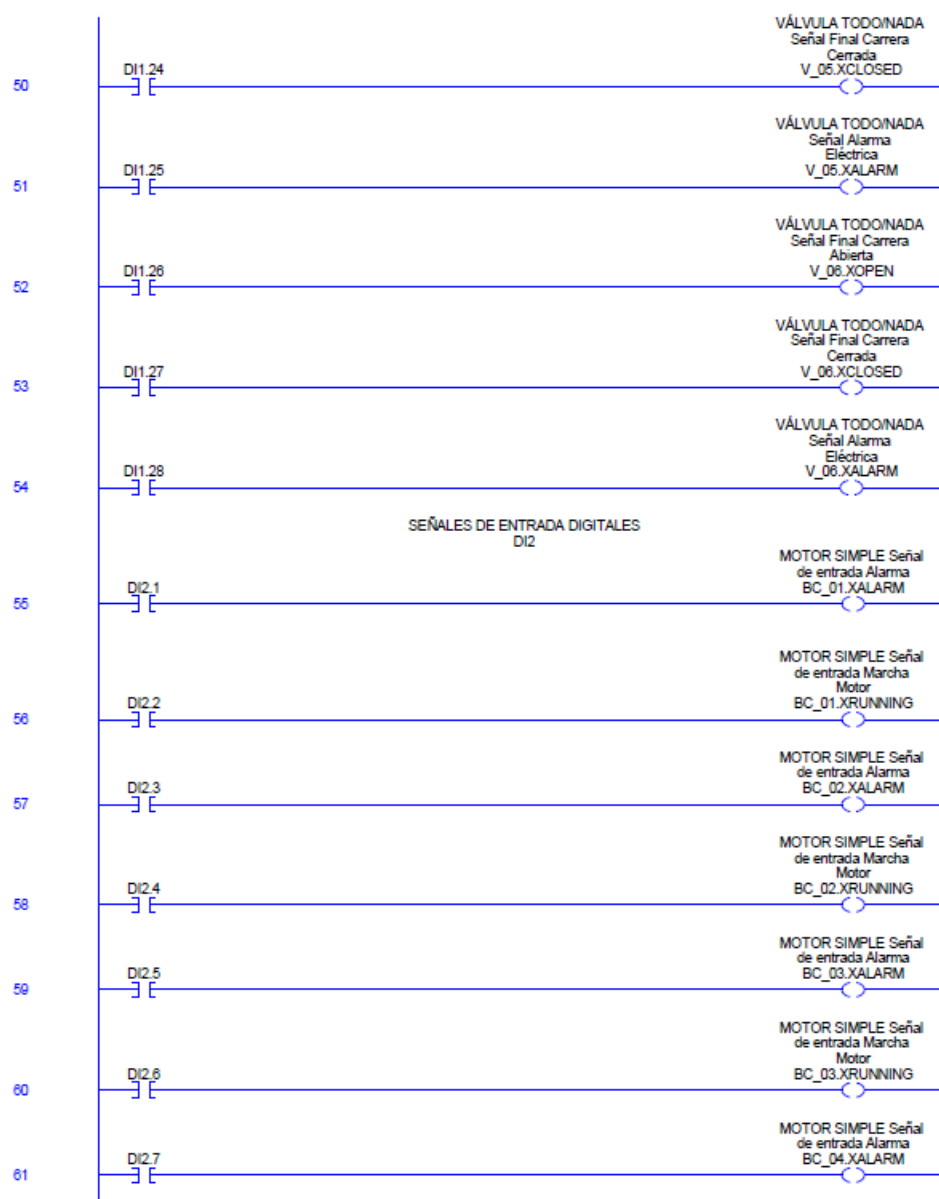
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_10_ENTRADAS - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 66

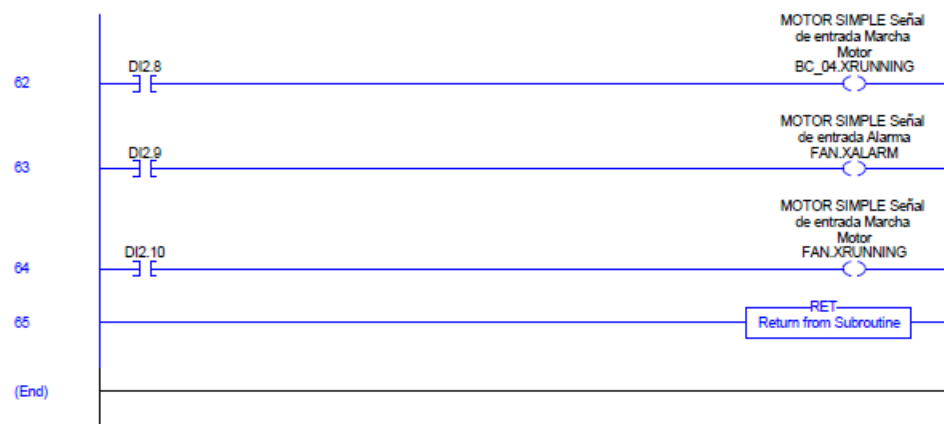
Page 6
19/09/2018 20:32:06
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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_10_ENTRADAS - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 66

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COMPRESOR SOPLADOR

_20_COMPRESOR_SOPLADOR - Ladder Diagram

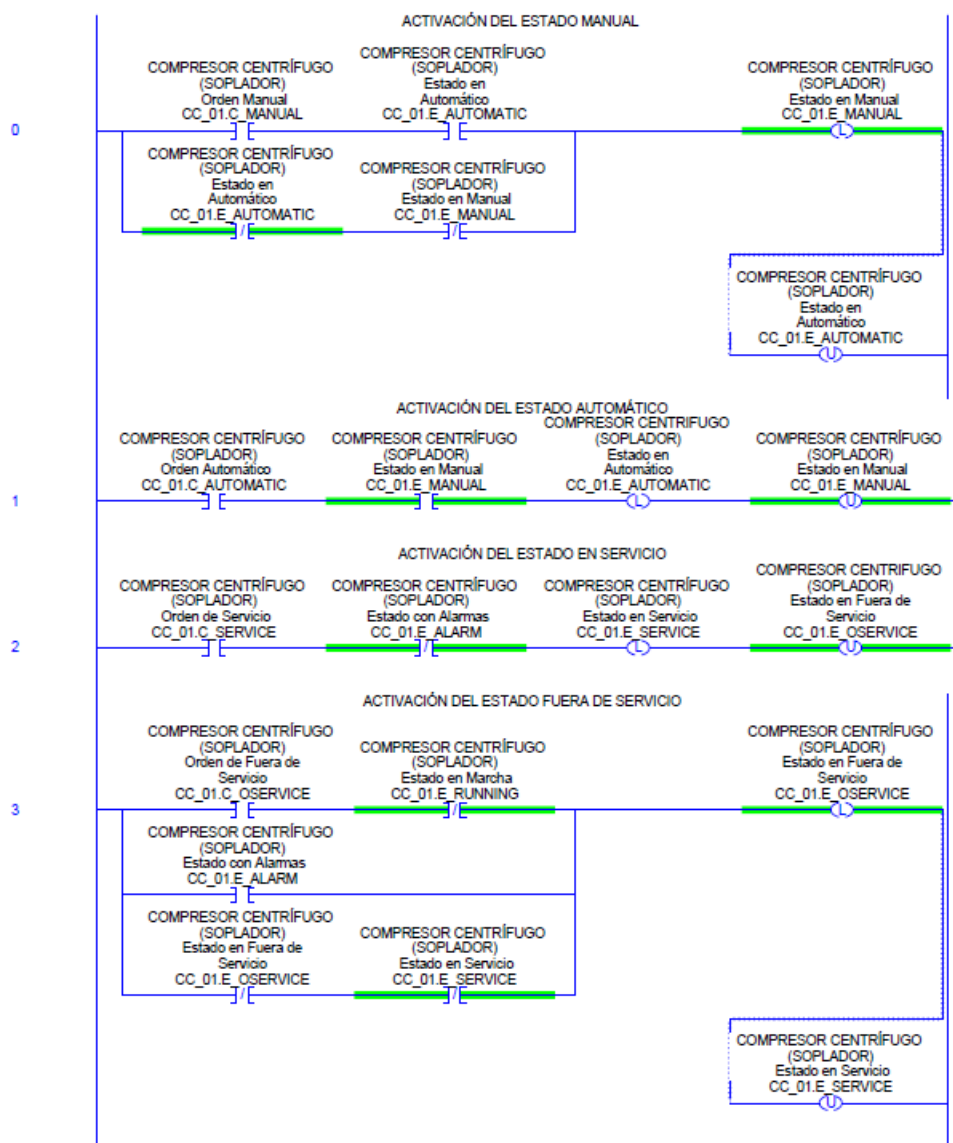
TFG:MainTask:MainProgram

Total number of rungs in routine: 28

Page 1

20/09/2018 12:34:44

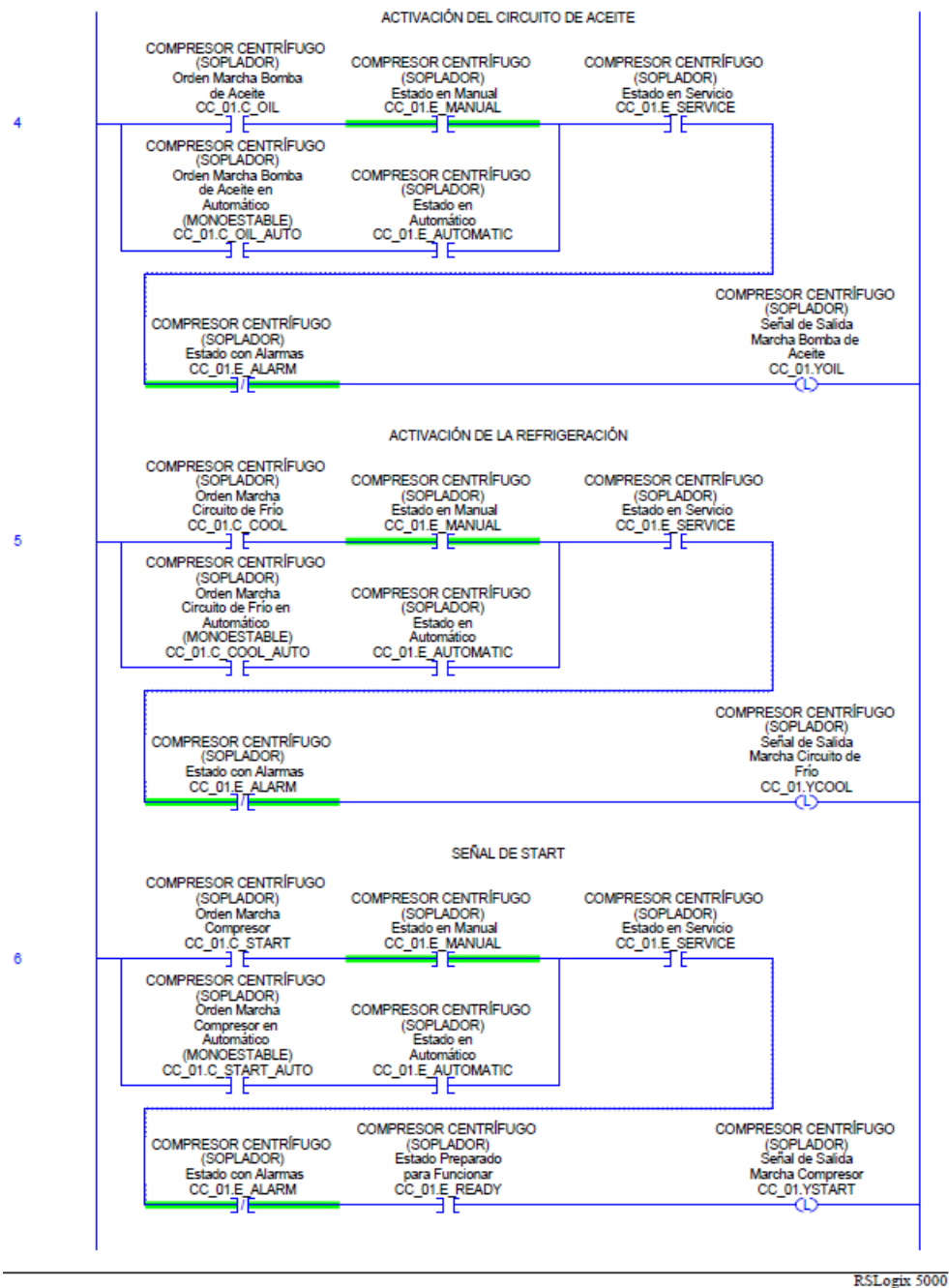
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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_20_COMPRESOR_SOPLADOR - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 28

Page 2
20/09/2018 12:35:12
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

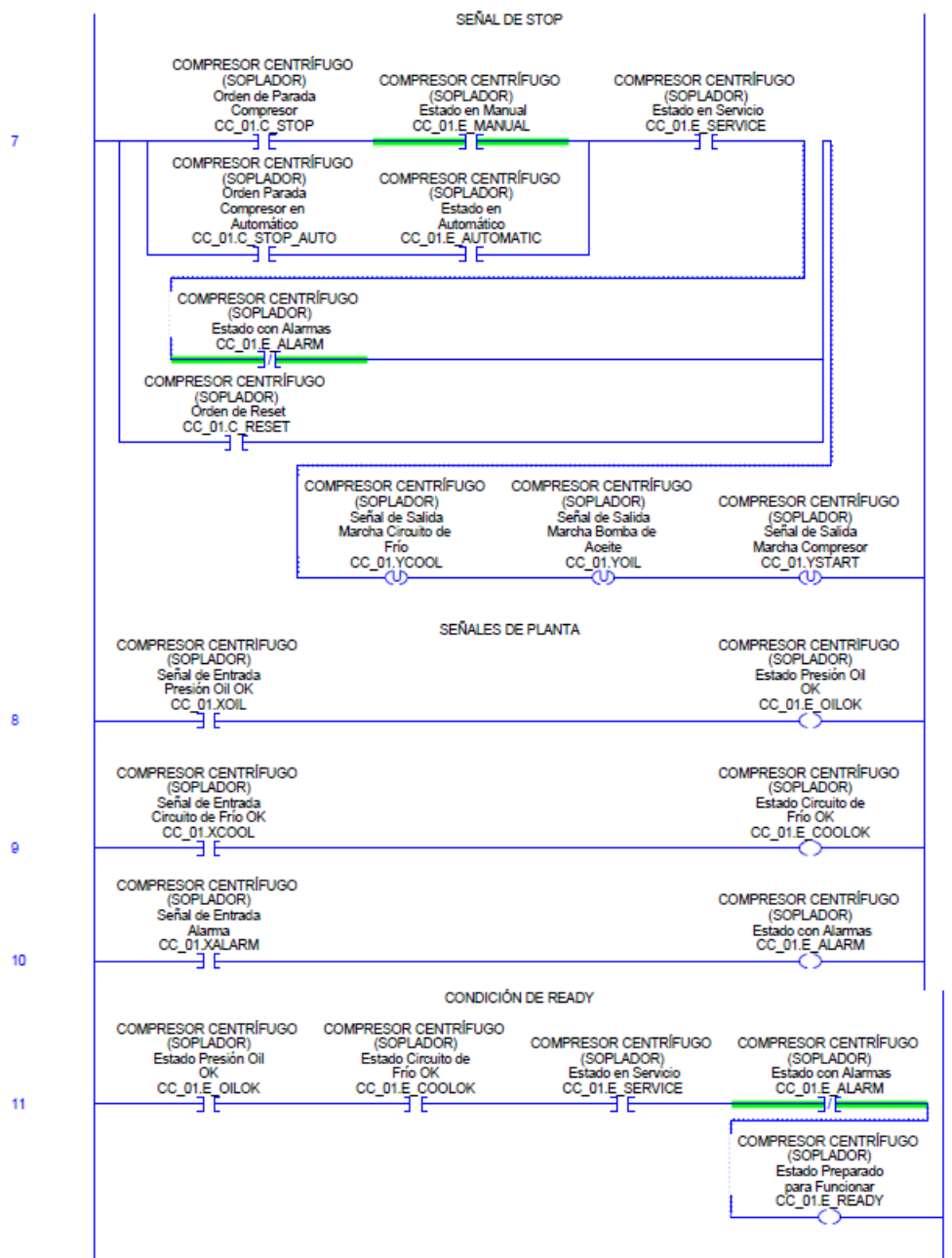


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_20_COMPRESOR_SOPLADOR - Ladder Diagram

TFG:MainTask:MainProgram

Total number of rungs in routine: 28

Page 3
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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

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_20_COMPRESOR_SOPLADOR - Ladder Diagram

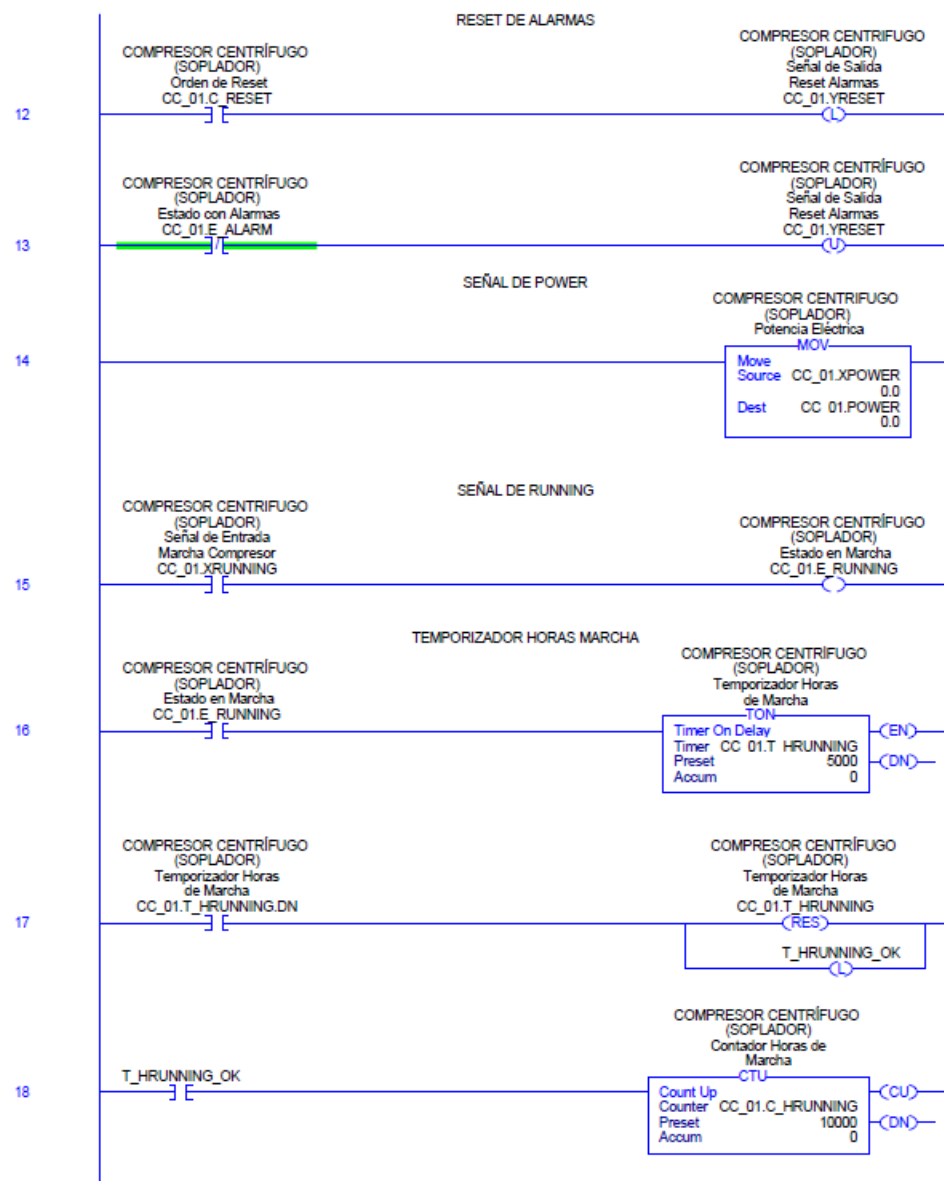
TFG:MainTask:MainProgram

Page 4

20/09/2018 12:35:12

Total number of rungs in routine: 28

C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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_20_COMPRESOR_SOPLADOR - Ladder Diagram

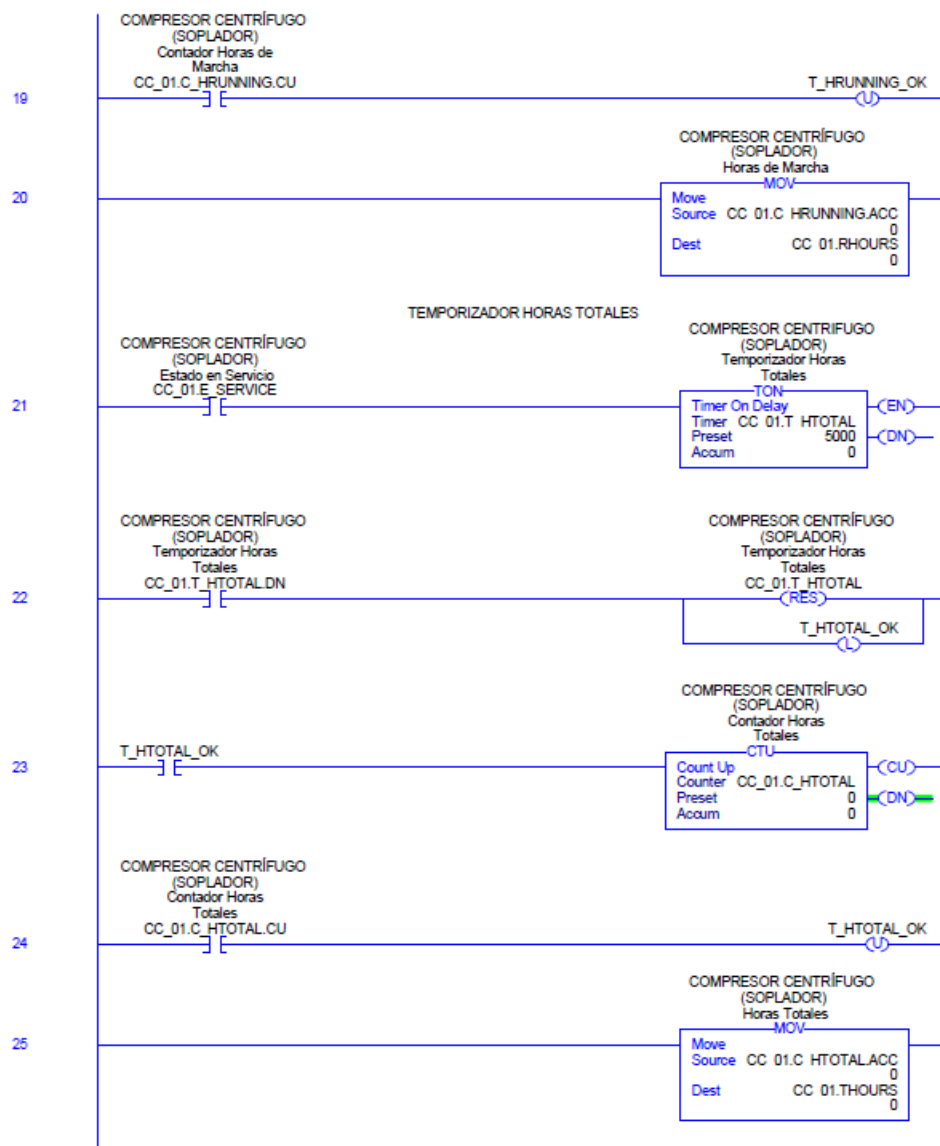
TFG:MainTask:MainProgram

Total number of runs in routine: 28

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_20_COMPRESOR_SOPLADOR - Ladder Diagram

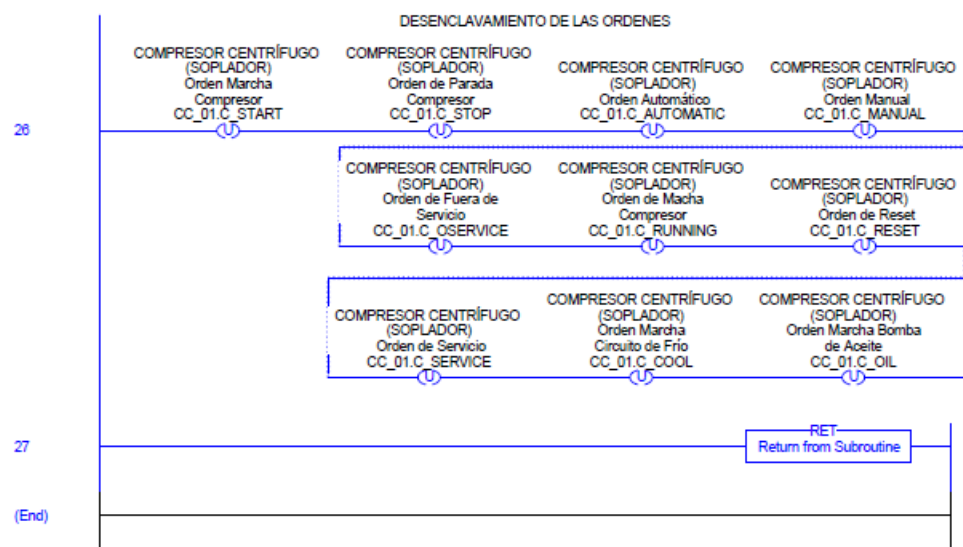
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Page 6

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Total number of rungs in routine: 28

C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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VÁLVULAS REGULADORAS

_30_VALVULA_REGULADORA - Ladder Diagram

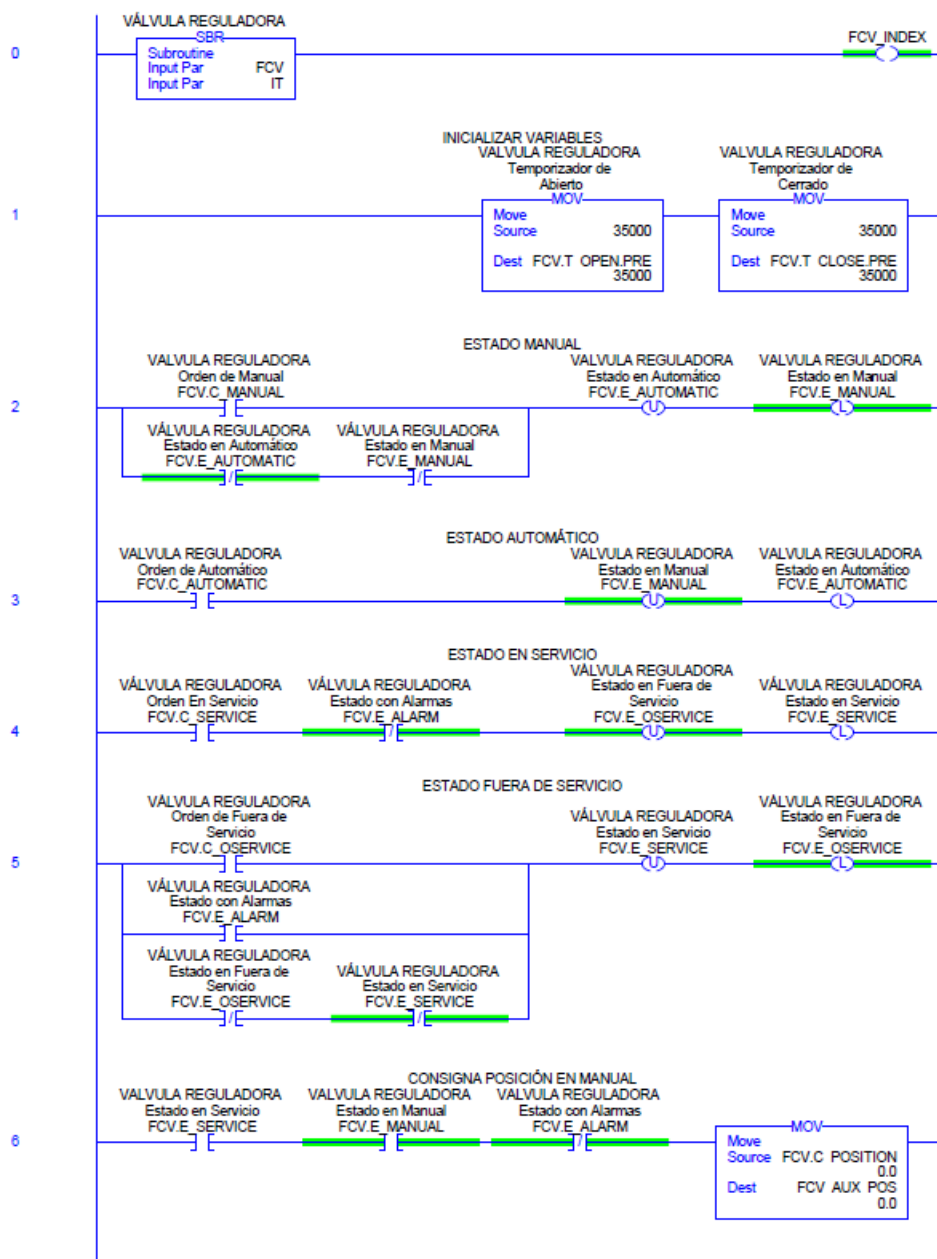
TFG:MainTask:MainProgram

Total number of rungs in routine: 21

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_30_VALVULA_REGULADORA - Ladder Diagram

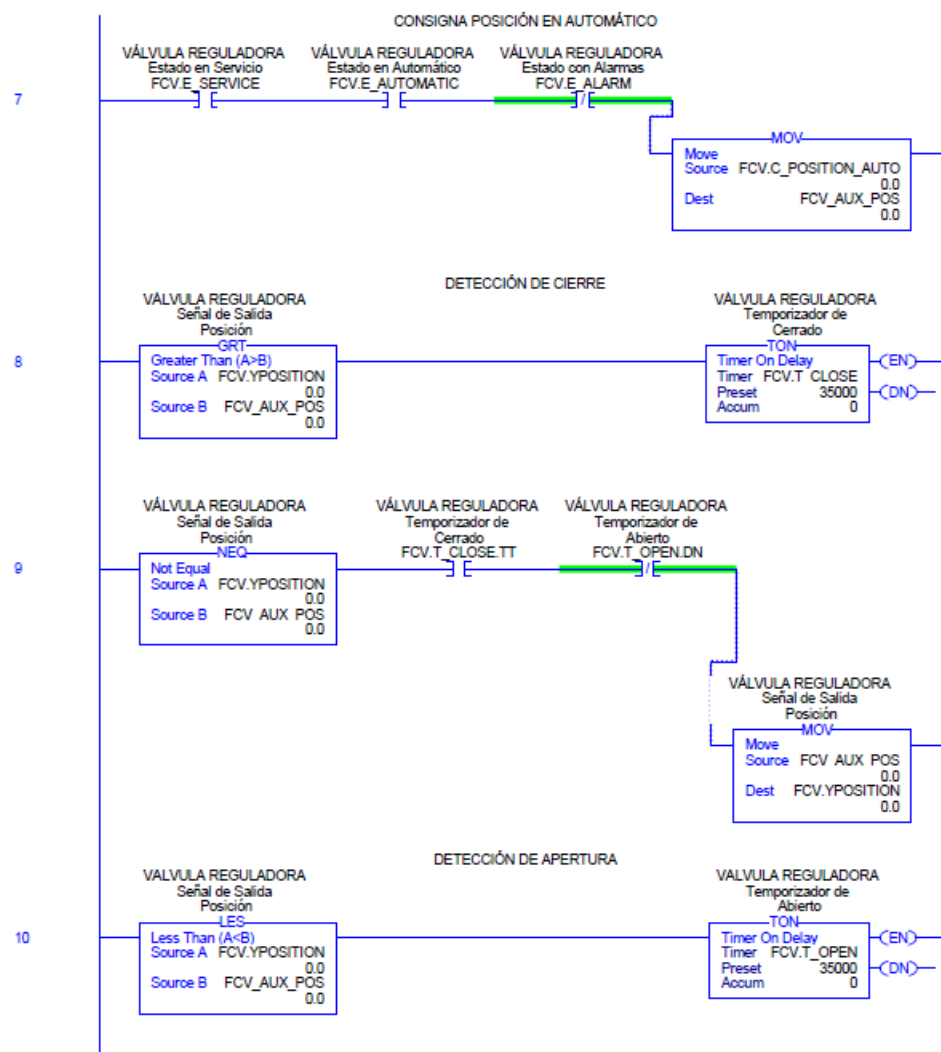
Page 2

TFG:MainTask:MainProgram

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Total number of rungs in routine: 21

C:\Documents and Settings\Administrador\Escritorio\TFG\TFG-ACD



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_30_VALVULA_REGULADORA - Ladder Diagram

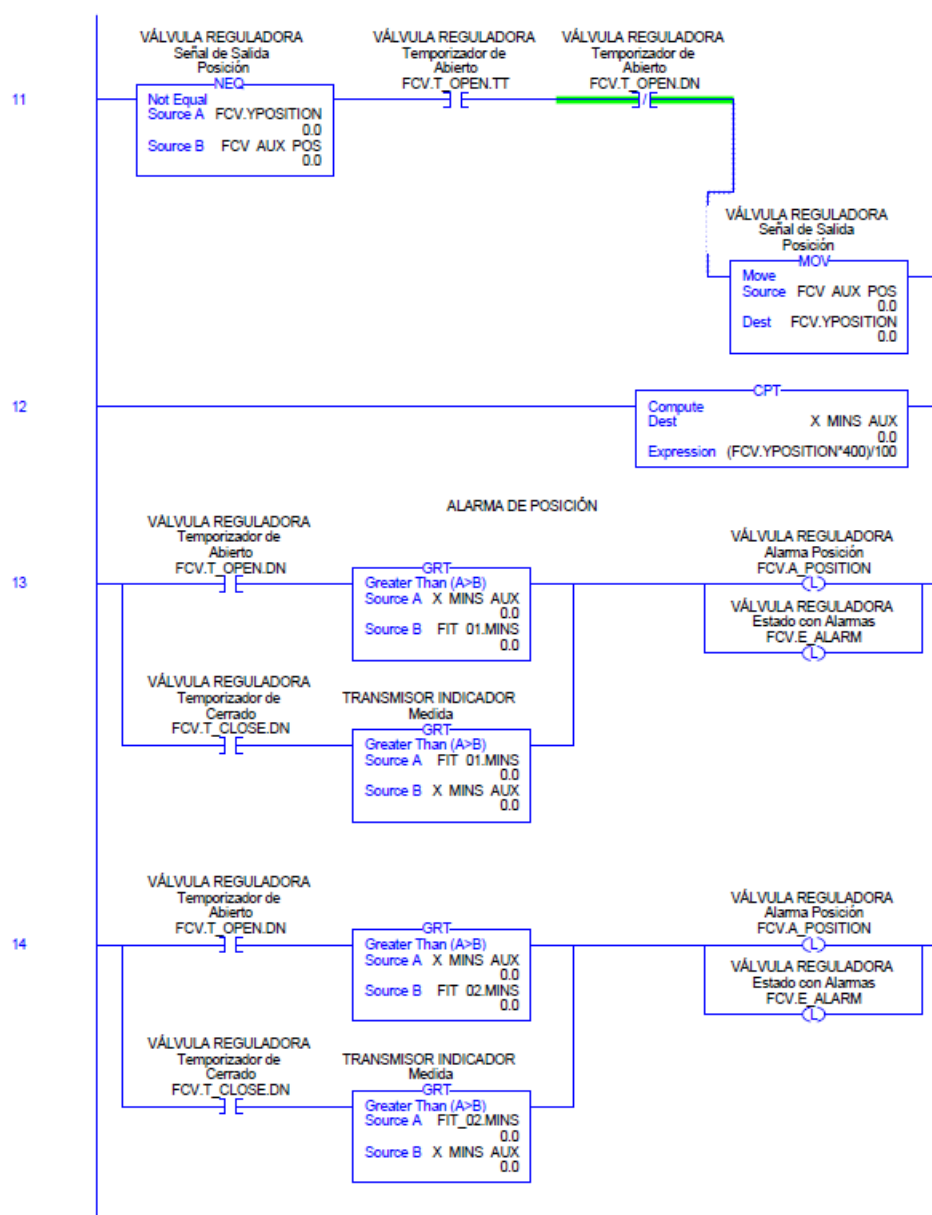
TFG.MainTask:MainProgram

Total number of rungs in routine: 21

Page 3

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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_30_VALVULA_REGULADORA - Ladder Diagram

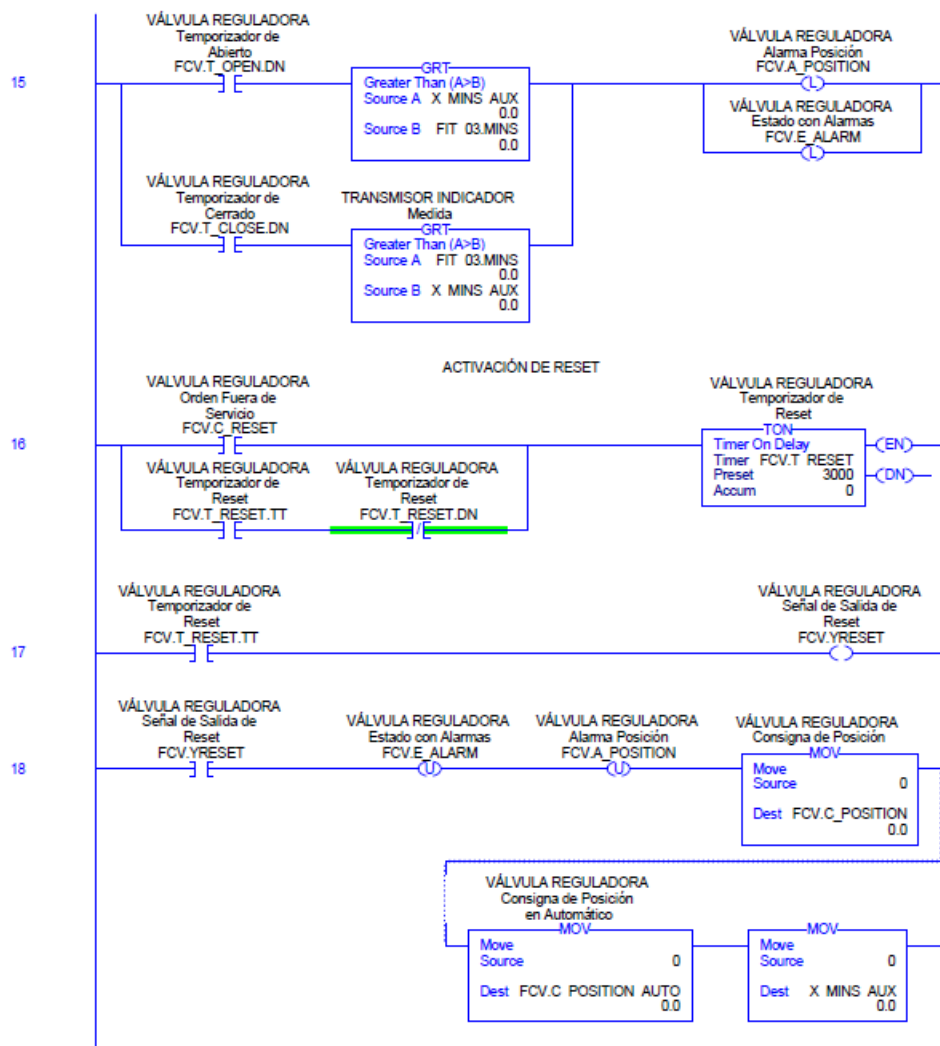
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Total number of rungs in routine: 21

Page 4

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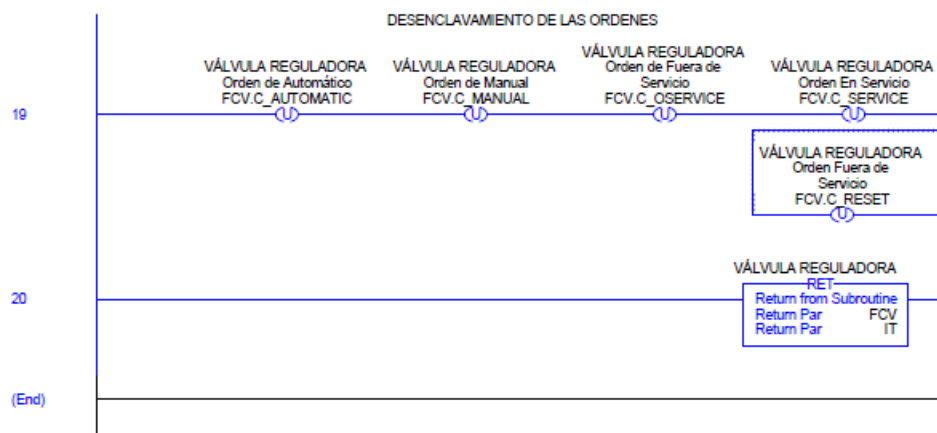
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_30_VALVULA_REGULADORA - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 21

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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INDICADOR TRANSMISOR

_40_INDICADOR_TRANSMISOR - Ladder Diagram

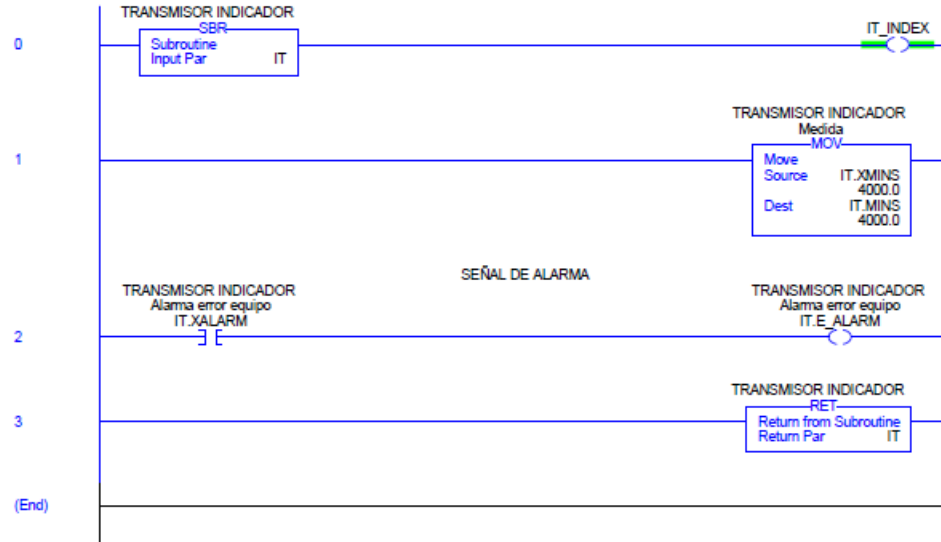
Page 1

TFG:MainTask:MainProgram

20/09/2018 12:36:36

Total number of rungs in routine: 4

C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

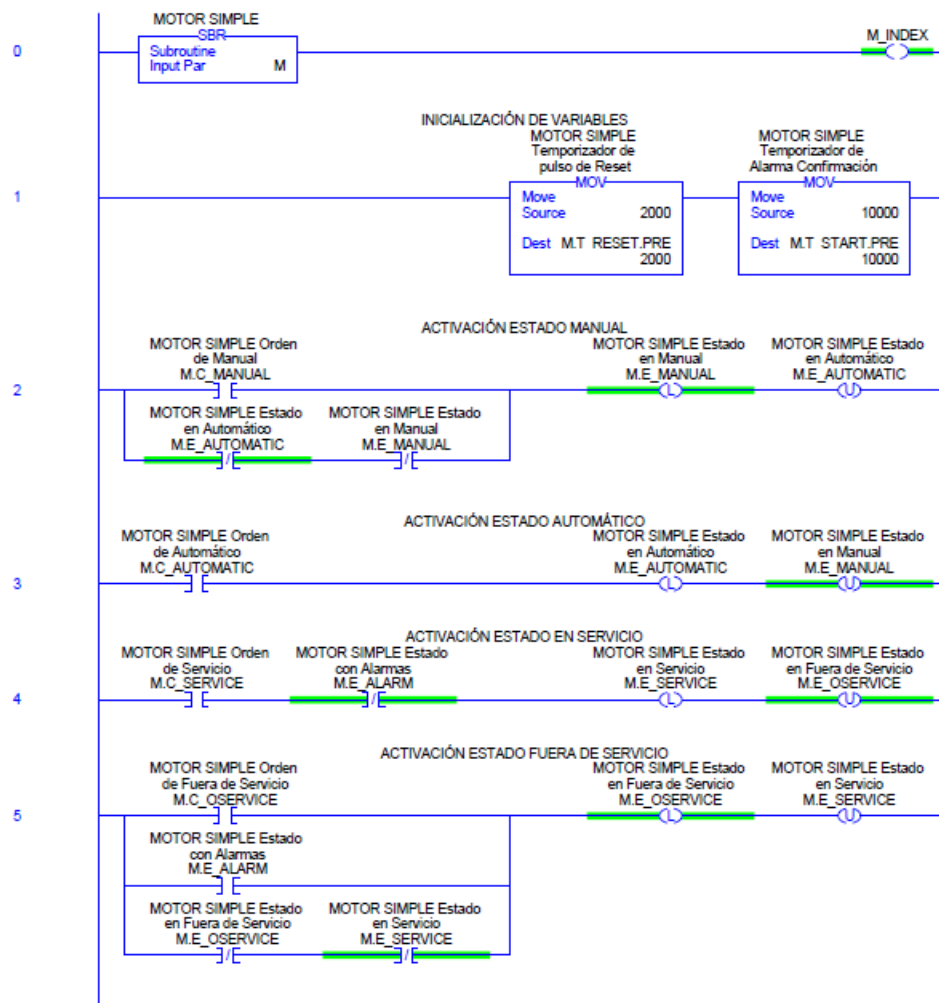


RSLogix 5000

MOTOR

_50_MOTOR_SIMPLE - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 15

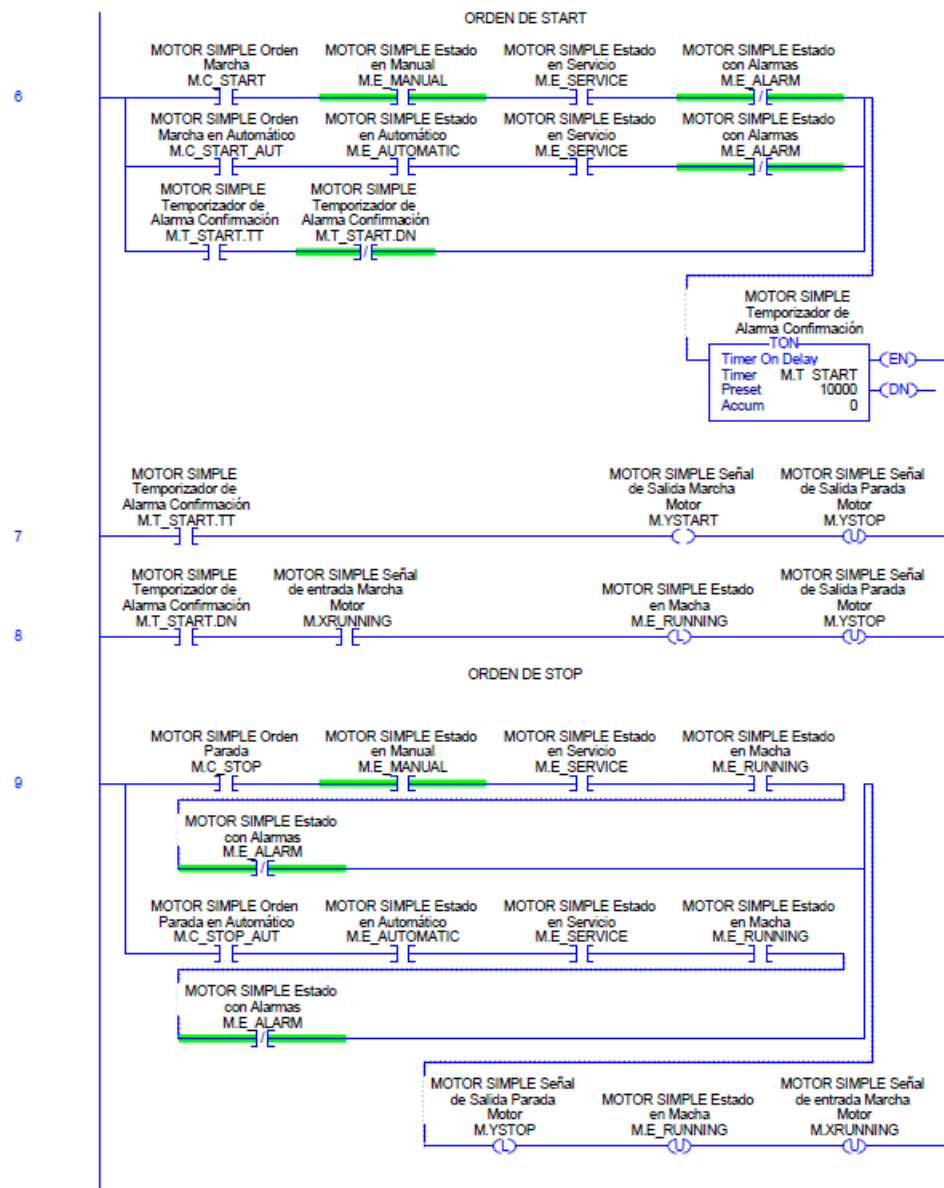
Page 1
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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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_50_MOTOR_SIMPLE - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 15

Page 2
20/09/2018 12:37:22
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG-ACD



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_50_MOTOR_SIMPLE - Ladder Diagram

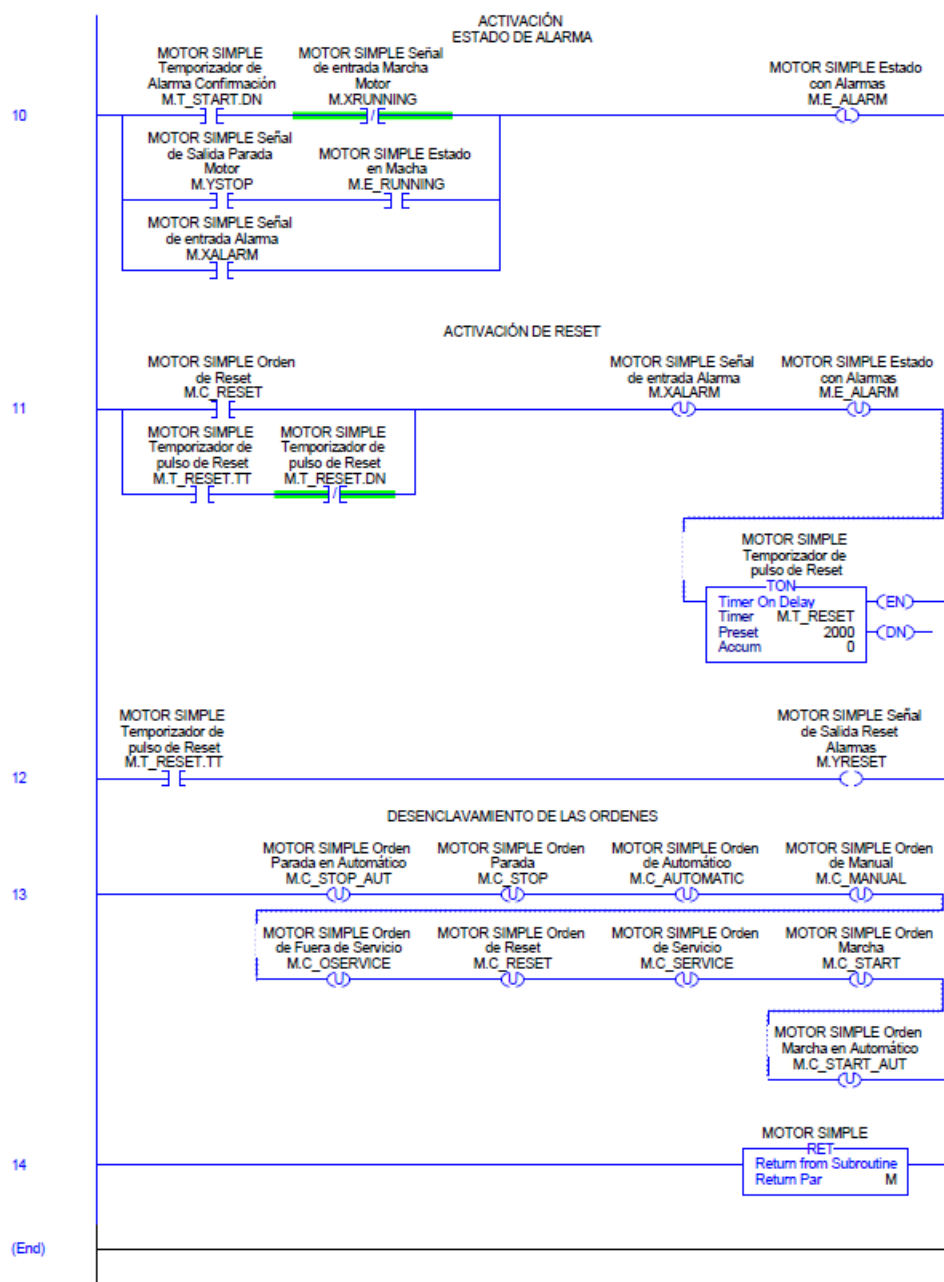
TFG.MainTask:MainProgram

Total number of rungs in routine: 15

Page 3

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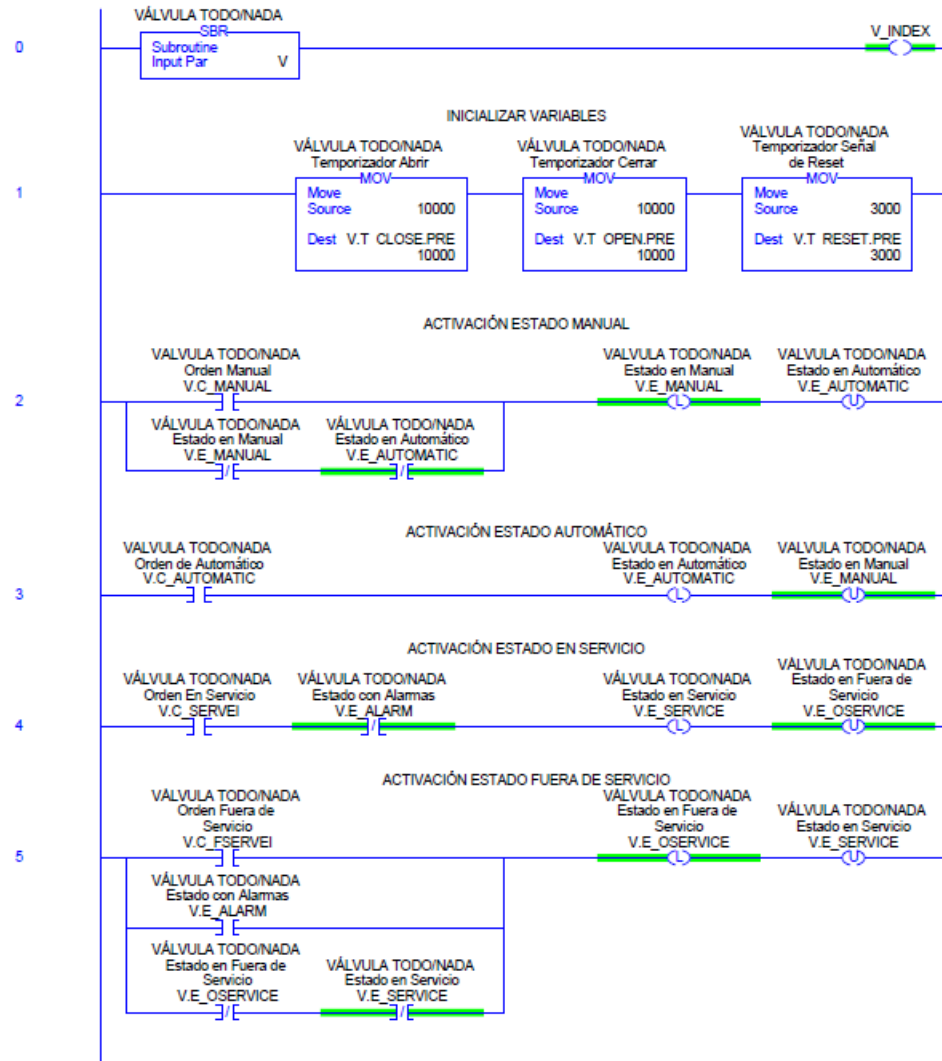
RSLogix 5000



VÁLVULAS TODO/NADA

_60_ON_OFF_VALVULAS - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 20

Page 1
20/09/2018 12:37:39
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG-ACD



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_60_ON_OFF_VALVULAS - Ladder Diagram

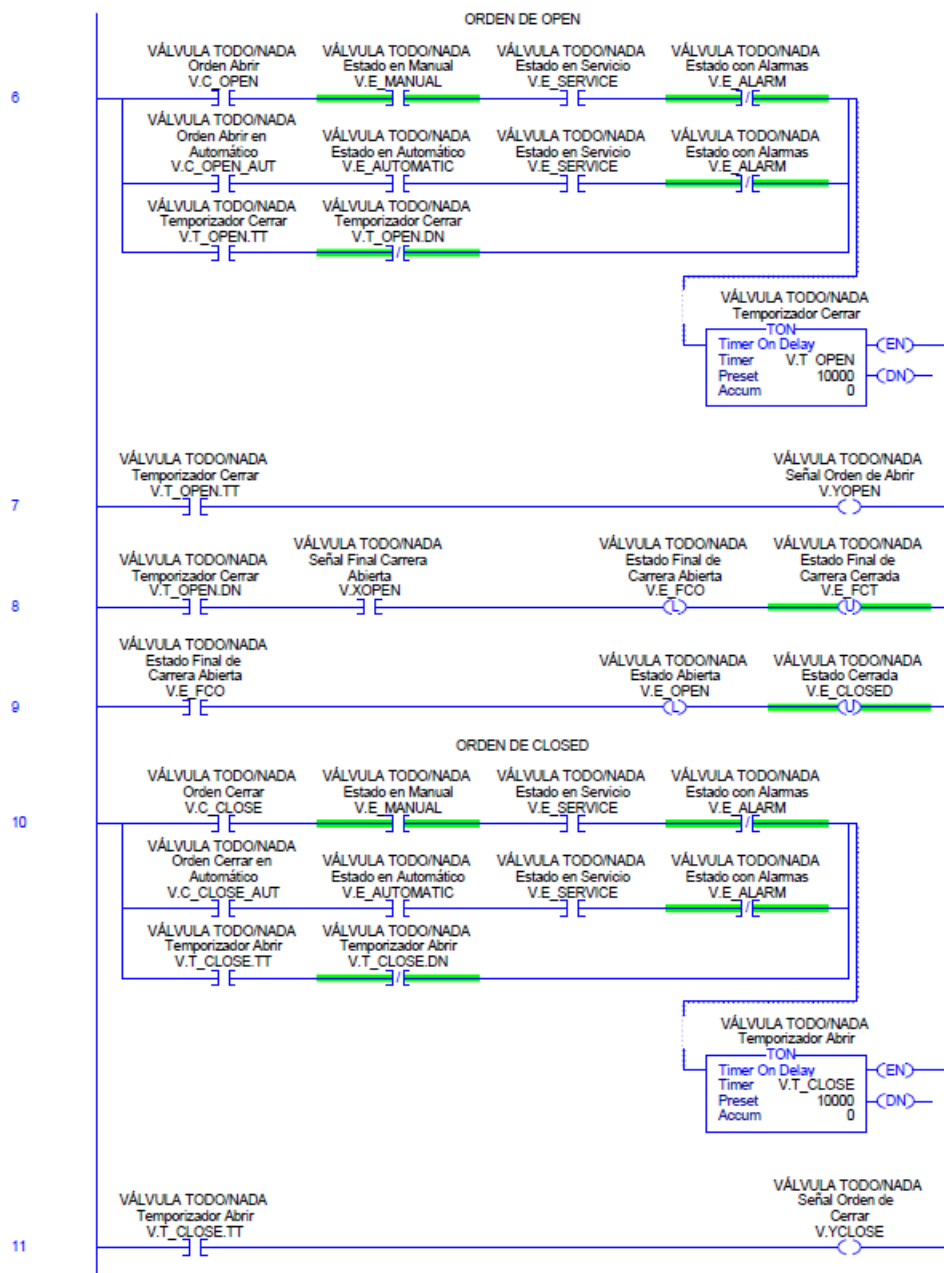
Page 2

TFG.MainTask:MainProgram

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Total number of rungs in routine: 20

C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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_60_ON_OFF_VALVULAS - Ladder Diagram

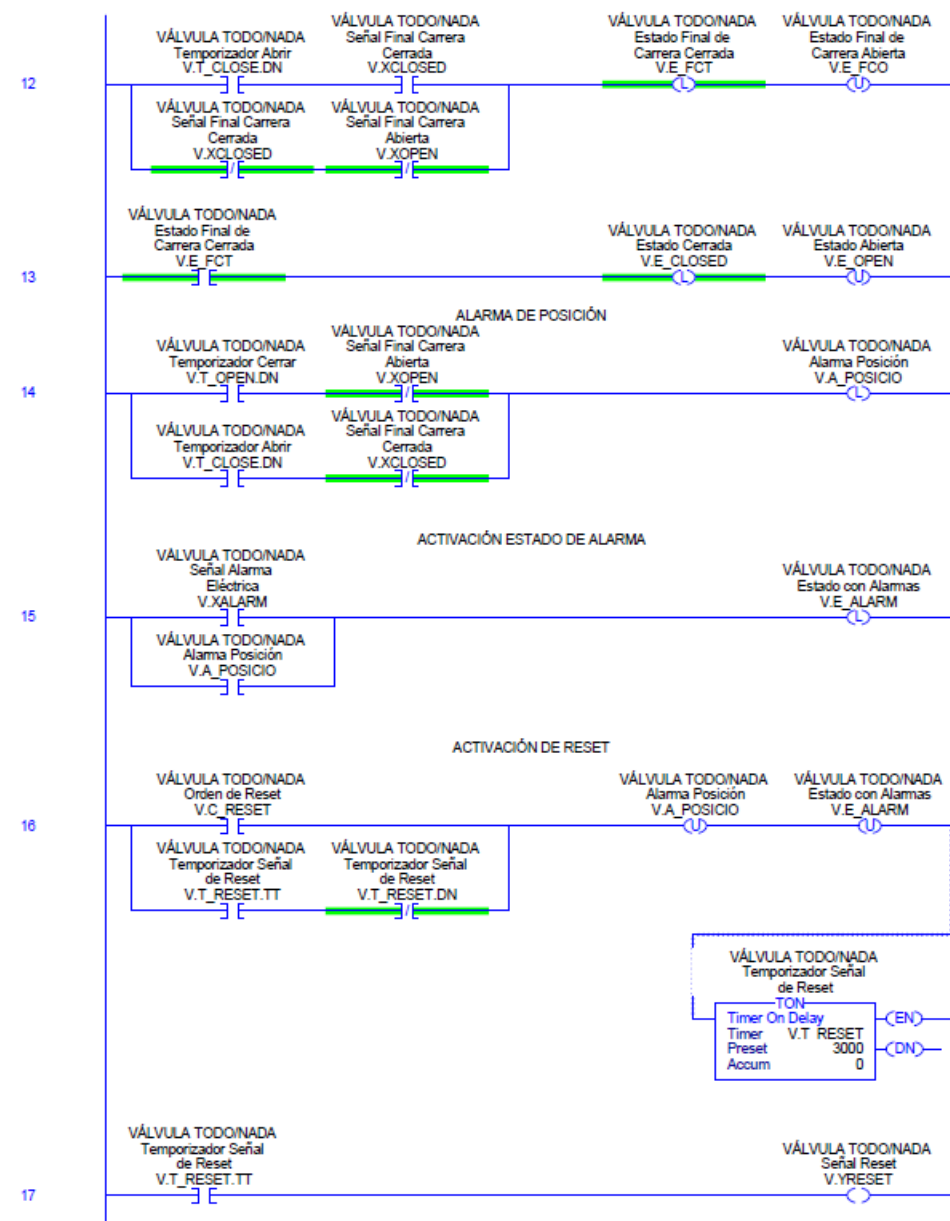
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Total number of rungs in routine: 20

C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

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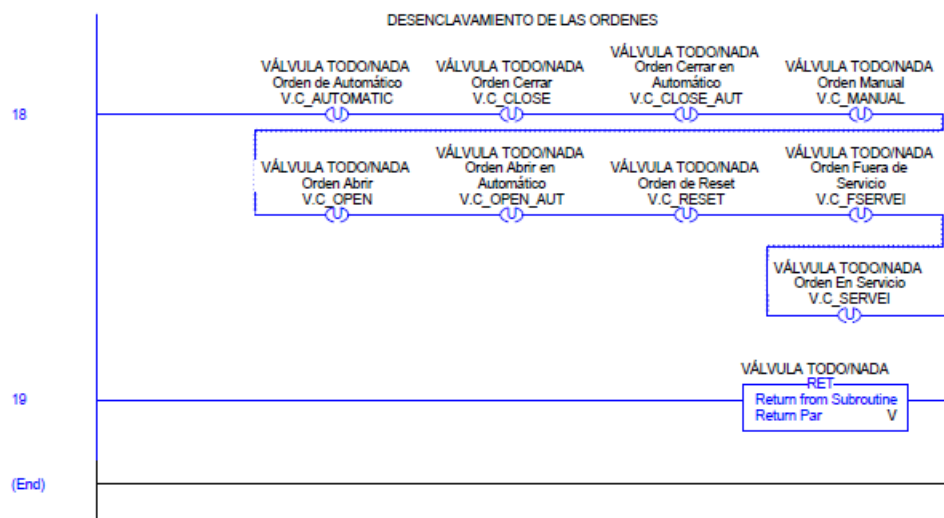
20/09/2018 12:38:00



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_60_ON_OFF_VALVULAS - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 20

Page 4
20/09/2018 12:38:00
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

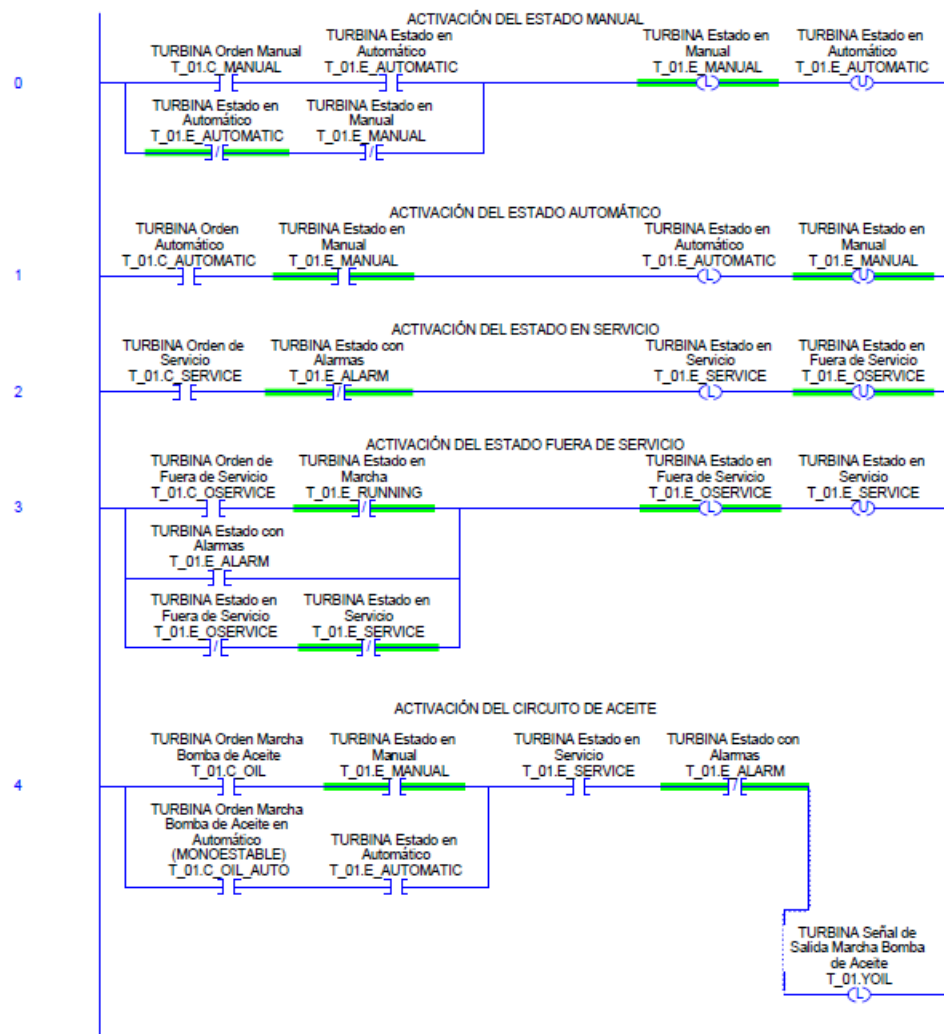


RSLogix 5000

TURBINA

_70_TURBINA - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 27

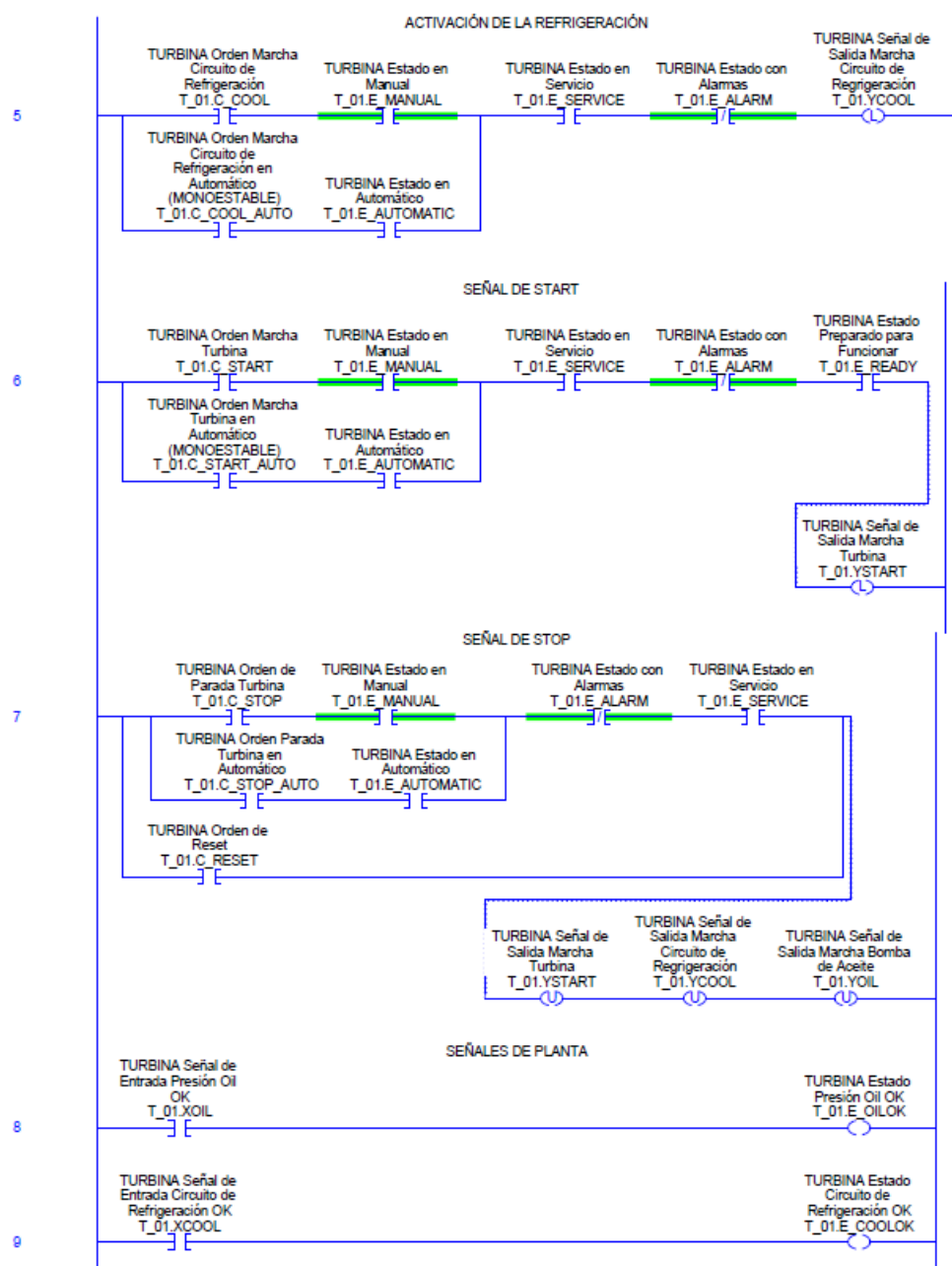
Page 1
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_70_TURBINA - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 27

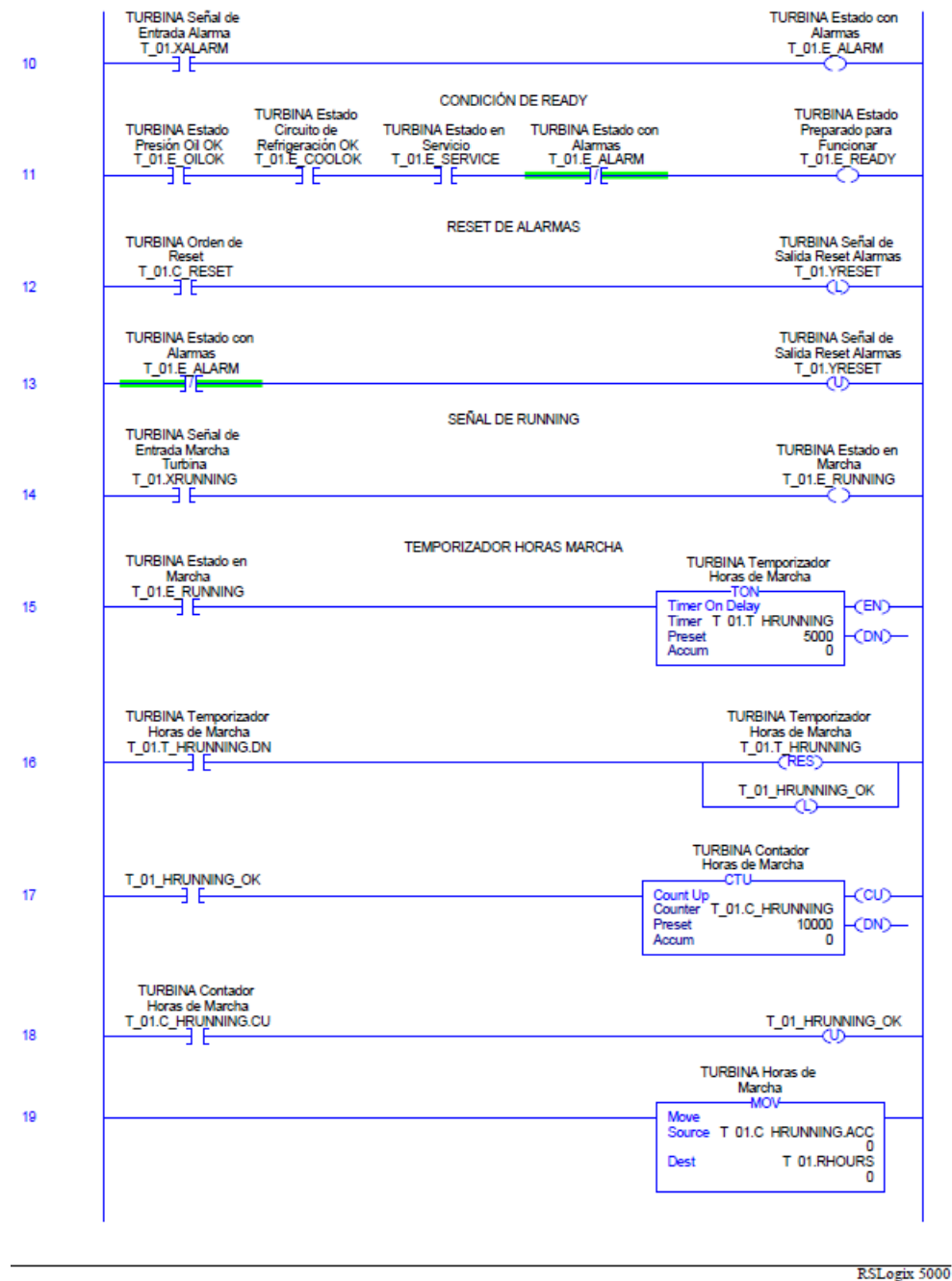
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_70_TURBINA - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 27

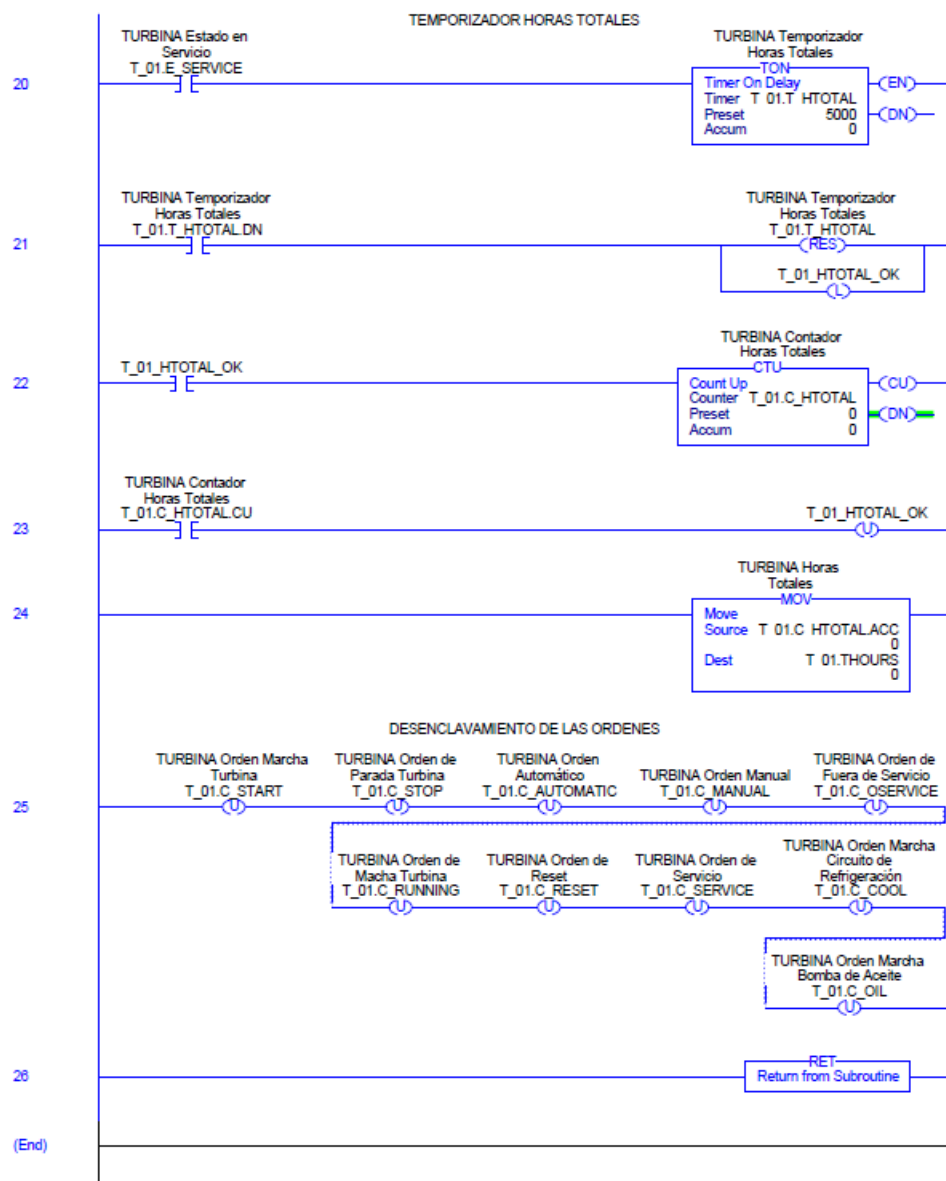
Page 3
20/09/2018 12:38:40
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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_70_TURBINA - Ladder Diagram
TFG:MainTask:MainProgram
Total number of runs in routine: 27

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



RSLogix 5000

GENERADOR

_80_GENERADOR - Ladder Diagram

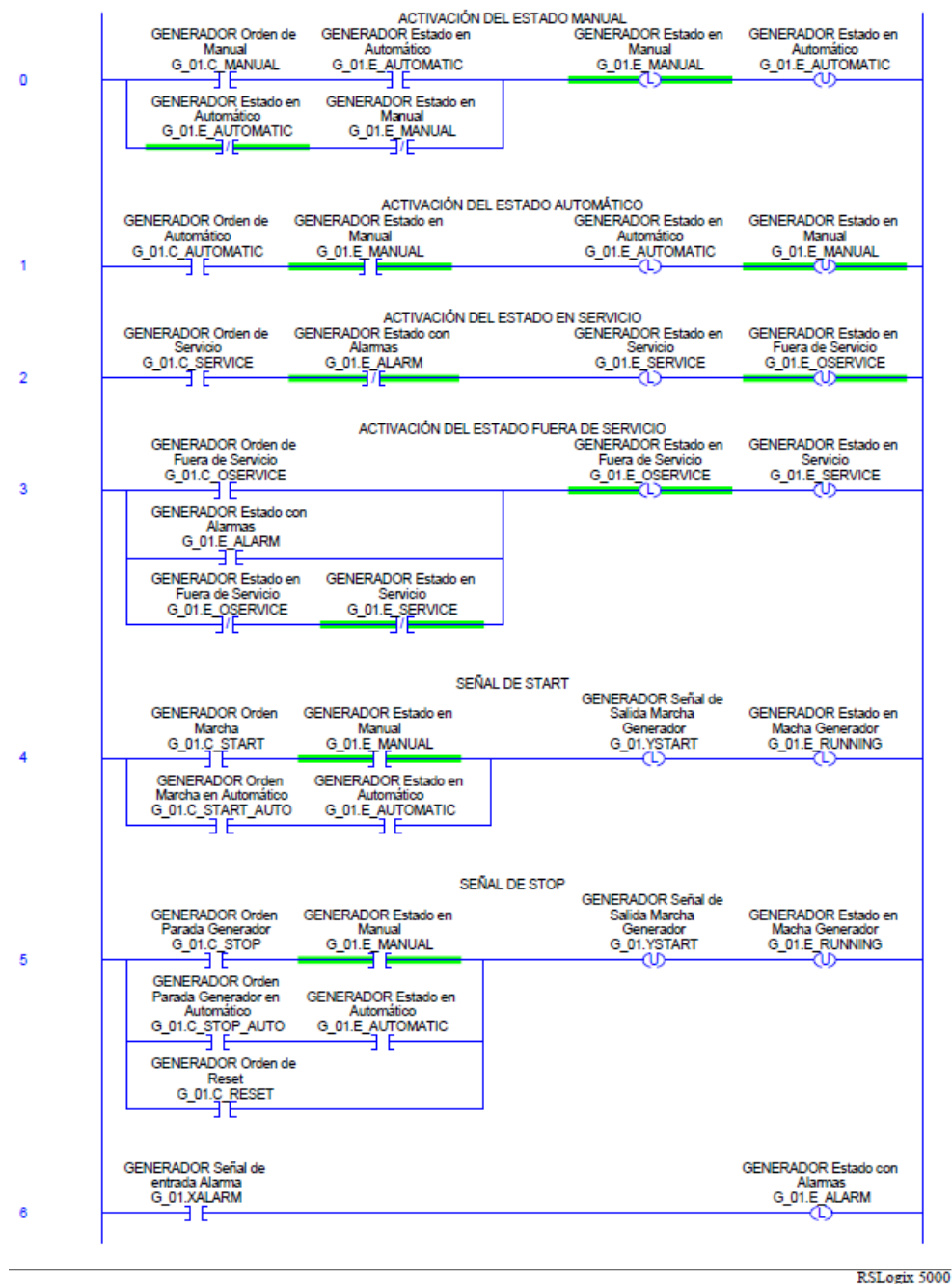
TFG:MainTask:MainProgram

Total number of rungs in routine: 10

Page 1

20/09/2018 12:39:00

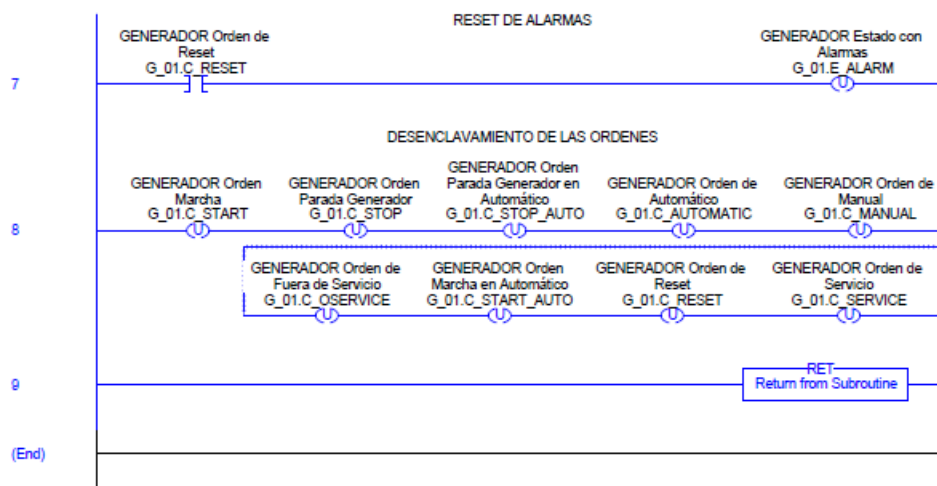
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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_80_GENERADOR - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 10

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20/09/2018 12:39:24
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



RSLogix 5000



SALIDAS

_90_SALIDAS - Ladder Diagram

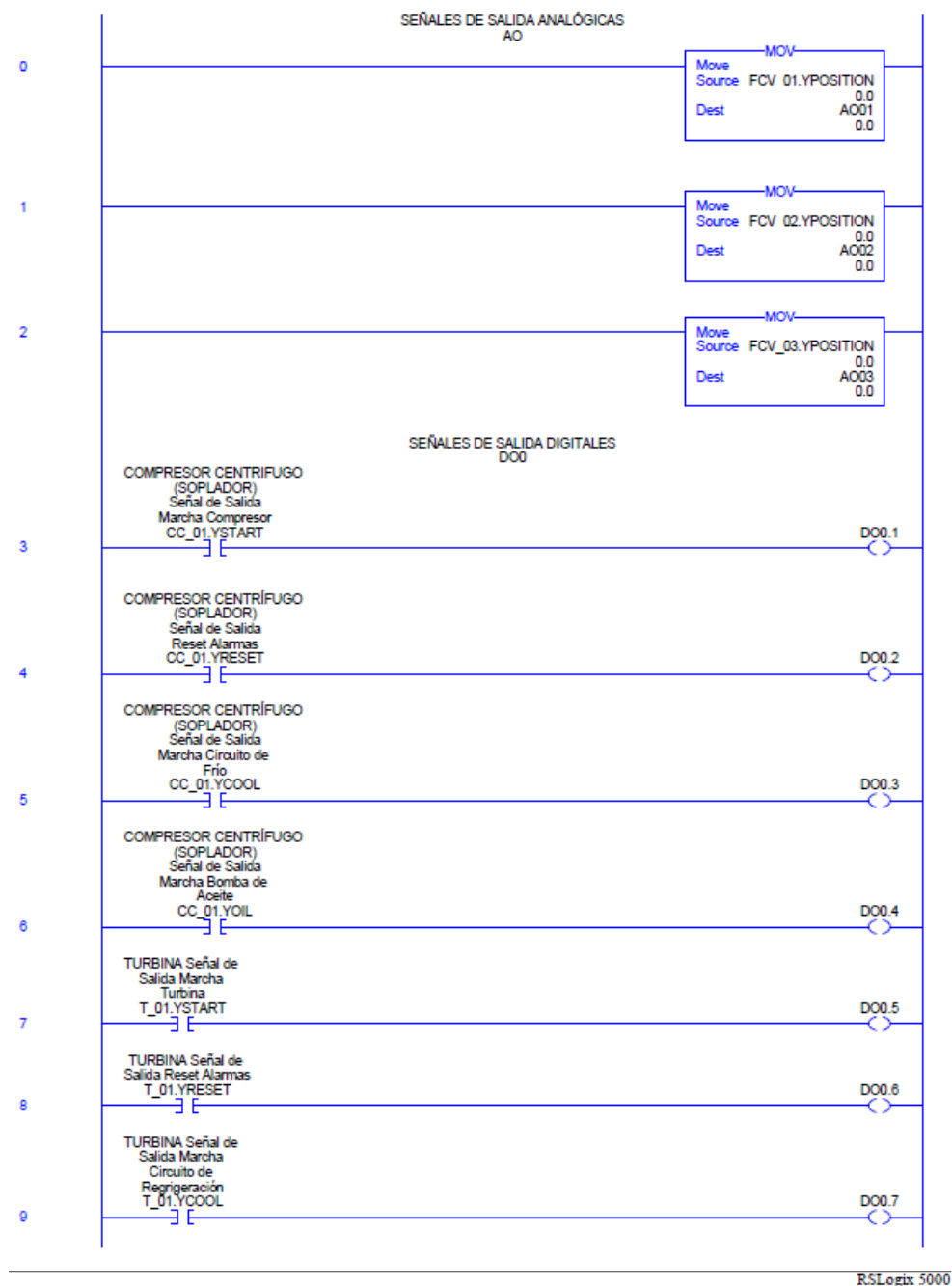
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Total number of rungs in routine: 50

Page 1

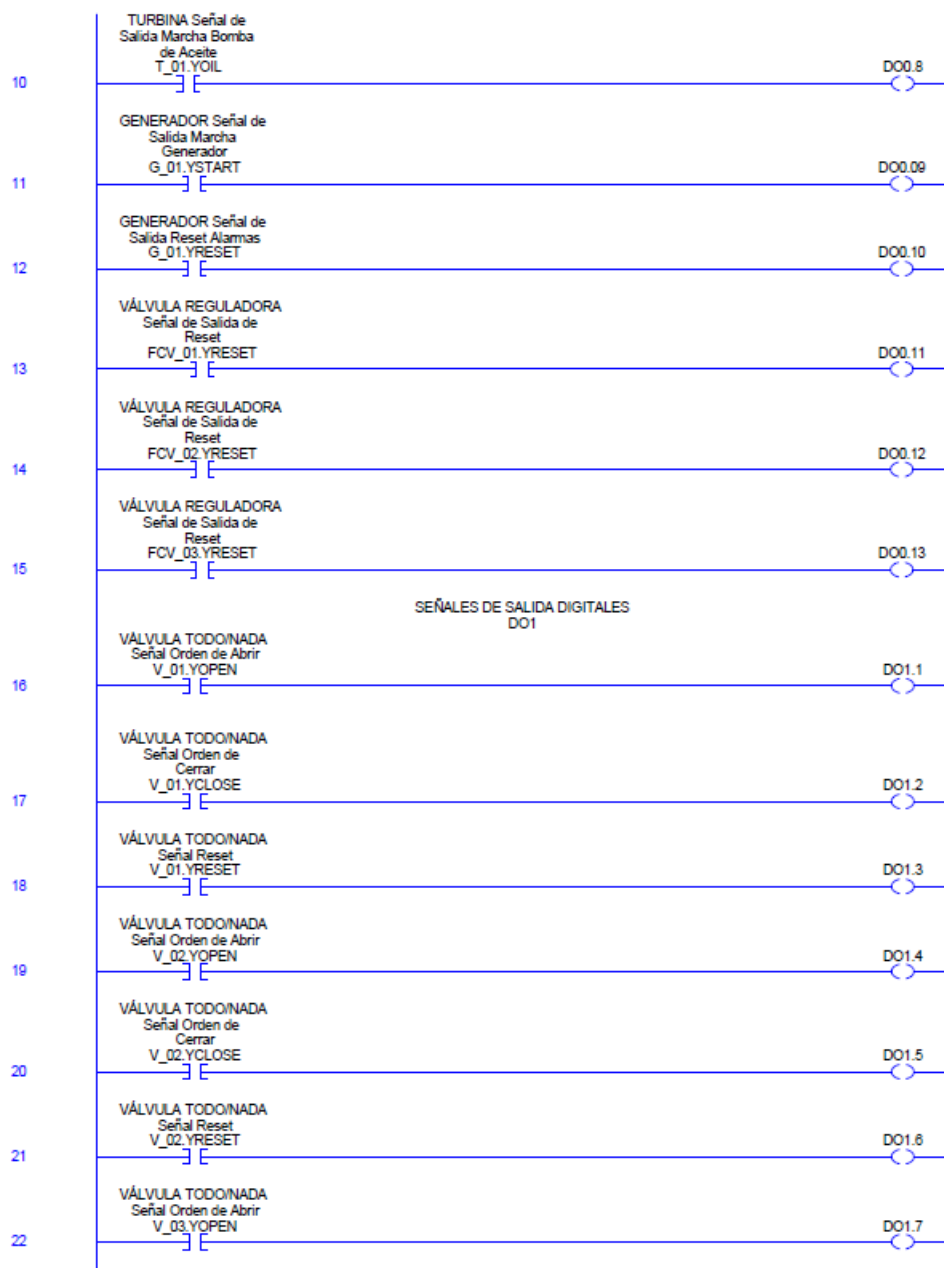
20/09/2018 12:39:49

C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



_90_SALIDAS - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 50

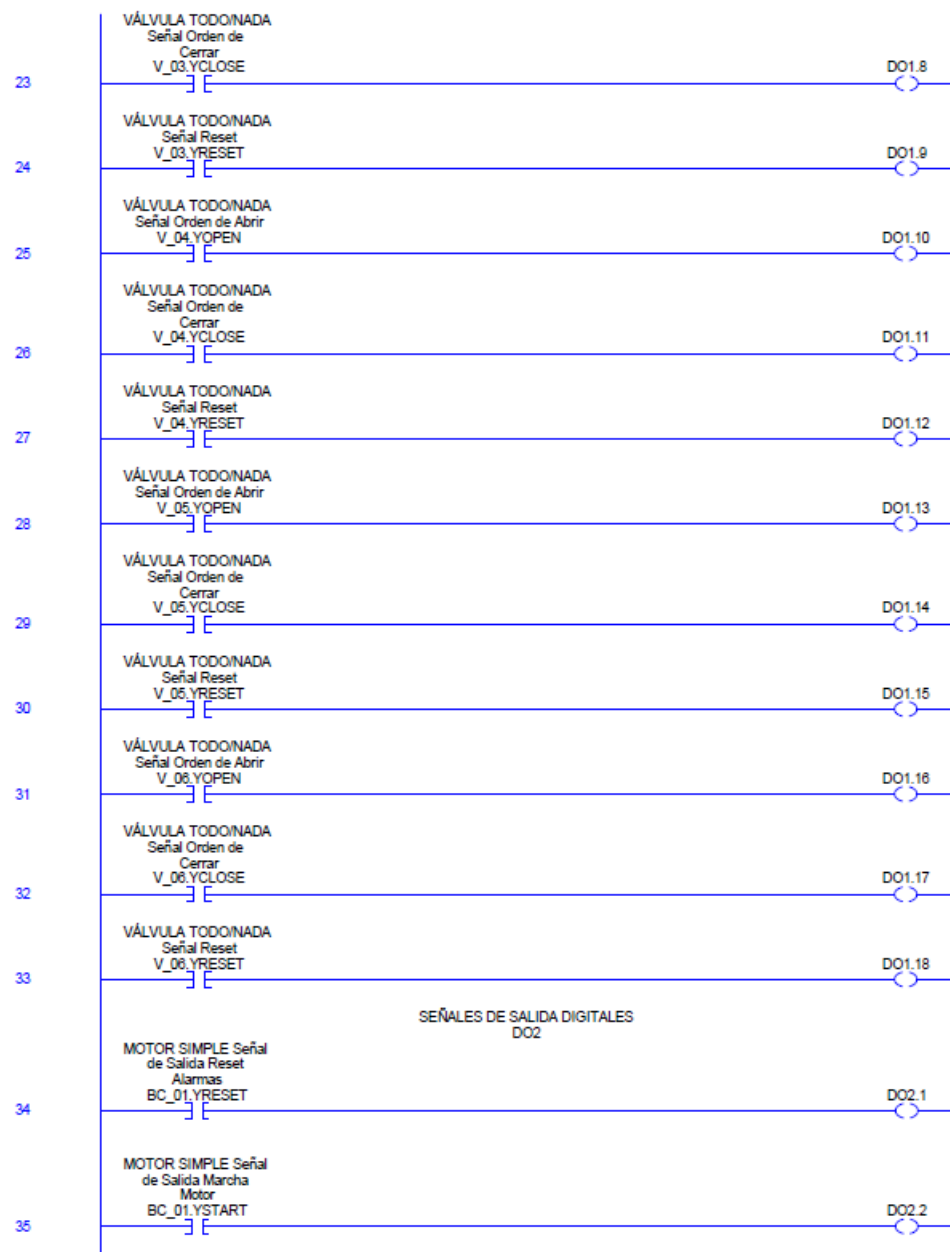
Page 2
20/09/2018 12:39:59
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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_90_SALIDAS - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 50

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_90_SALIDAS - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 50

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

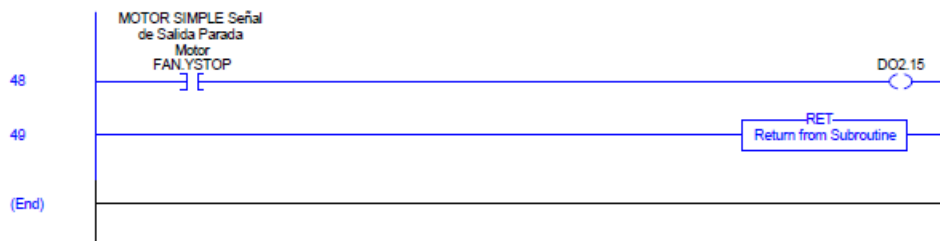


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_90_SALIDAS - Ladder Diagram
TFG:MainTask:MainProgram
Total number of rungs in routine: 50

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1.1.2. Autom3tico

PROGRAM TAGS

TFG - Program Tag Listing
TFG (Controller)Page 1
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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACDShow: All Tags
Sort by: Name

Name	Data Type	Description
Circuito_Vapor_OK	BOOL	
COND_FUNC	BOOL	
<input type="checkbox"/> Grafcet	INT	GRAF CET
Grafcet.0	BOOL	ETAPA 0
Grafcet.1	BOOL	ETAPA 1
Grafcet.2	BOOL	ETAPA 2
Grafcet.3	BOOL	ETAPA 3
Grafcet.4	BOOL	ETAPA 4
Grafcet.5	BOOL	ETAPA 5
Grafcet.6	BOOL	ETAPA 6
Grafcet.7	BOOL	ETAPA 7
Grafcet.8	BOOL	ETAPA 8
Grafcet.9	BOOL	ETAPA 9
Grafcet.10	BOOL	ETAPA 10
Grafcet.11	BOOL	ETAPA 11
Grafcet.12	BOOL	ETAPA 12
Grafcet.13	BOOL	ETAPA 13
Grafcet.14	BOOL	ETAPA14
Grafcet.15	BOOL	ETAPA 15
<input type="checkbox"/> Grafcet_Paro	INT	
Grafcet_Paro.0	BOOL	ETAPA 0
Grafcet_Paro.1	BOOL	ETAPA 1
Grafcet_Paro.2	BOOL	ETAPA 2
Grafcet_Paro.3	BOOL	ETAPA 3
Grafcet_Paro.4	BOOL	ETAPA 4
Grafcet_Paro.5	BOOL	ETAPA 5
Grafcet_Paro.6	BOOL	ETAPA 6
Grafcet_Paro.7	BOOL	ETAPA 7
Grafcet_Paro.8	BOOL	ETAPA 8
Grafcet_Paro.9	BOOL	ETAPA 9
Grafcet_Paro.10	BOOL	ETAPA 10
Paro_OK	BOOL	

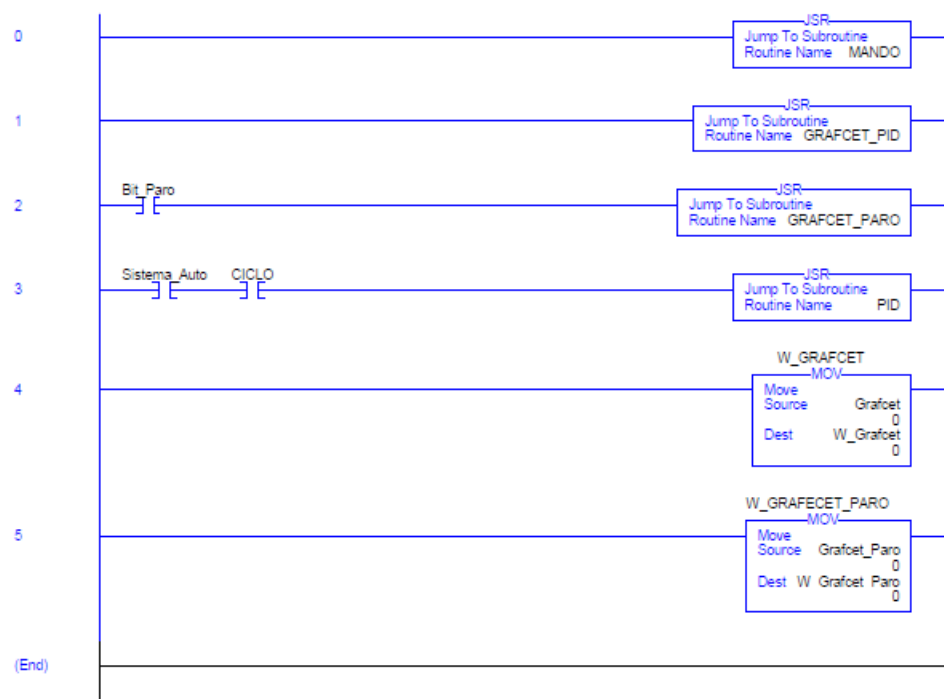
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MAIN

MAIN - Ladder Diagram
 TFG:MainTask:Control_Auto
 Total number of rungs in routine: 6

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 C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



RSLogix 5000

GRAFCET

GRAFCET_PID - Ladder Diagram

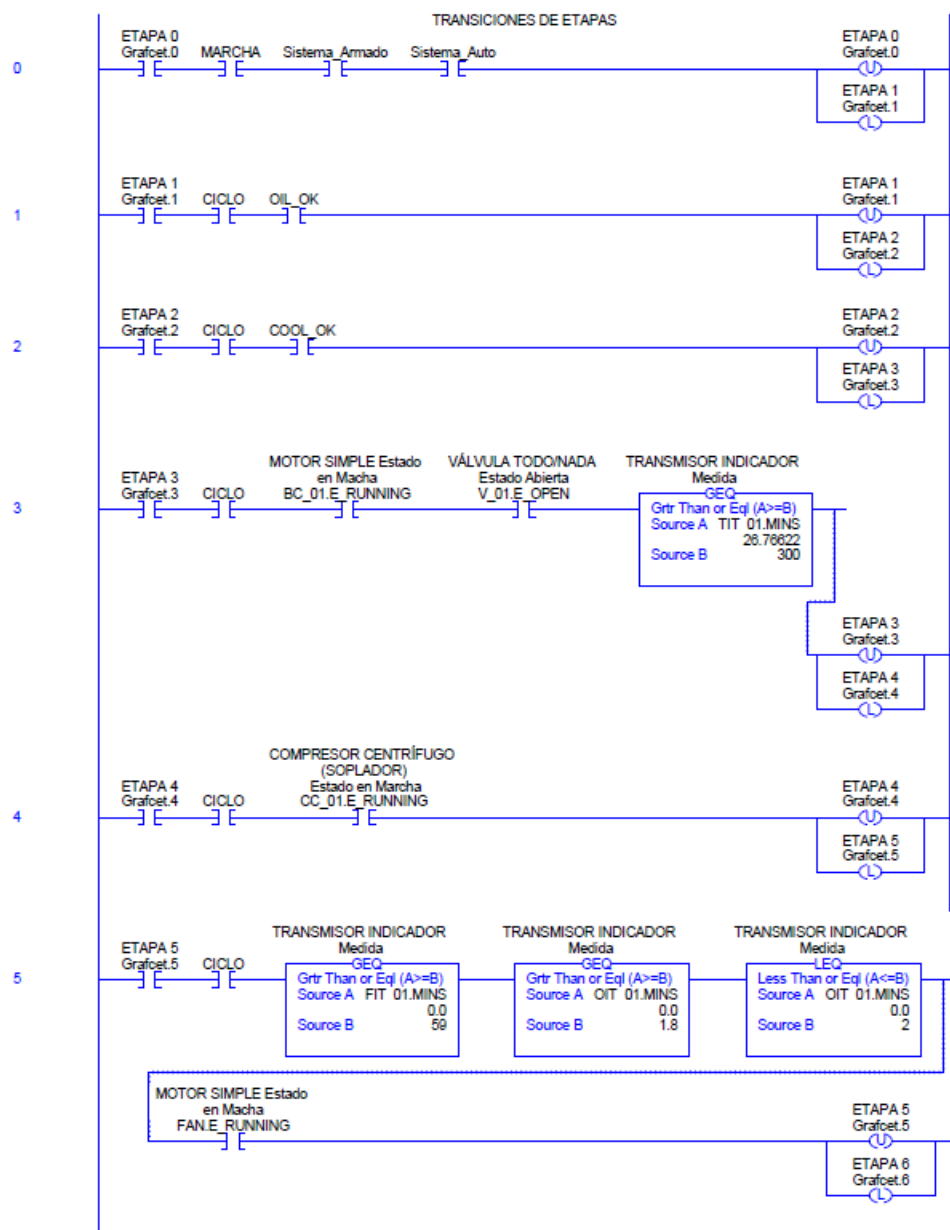
TFG:MainTask:Control_Auto

Total number of rungs in routine: 24

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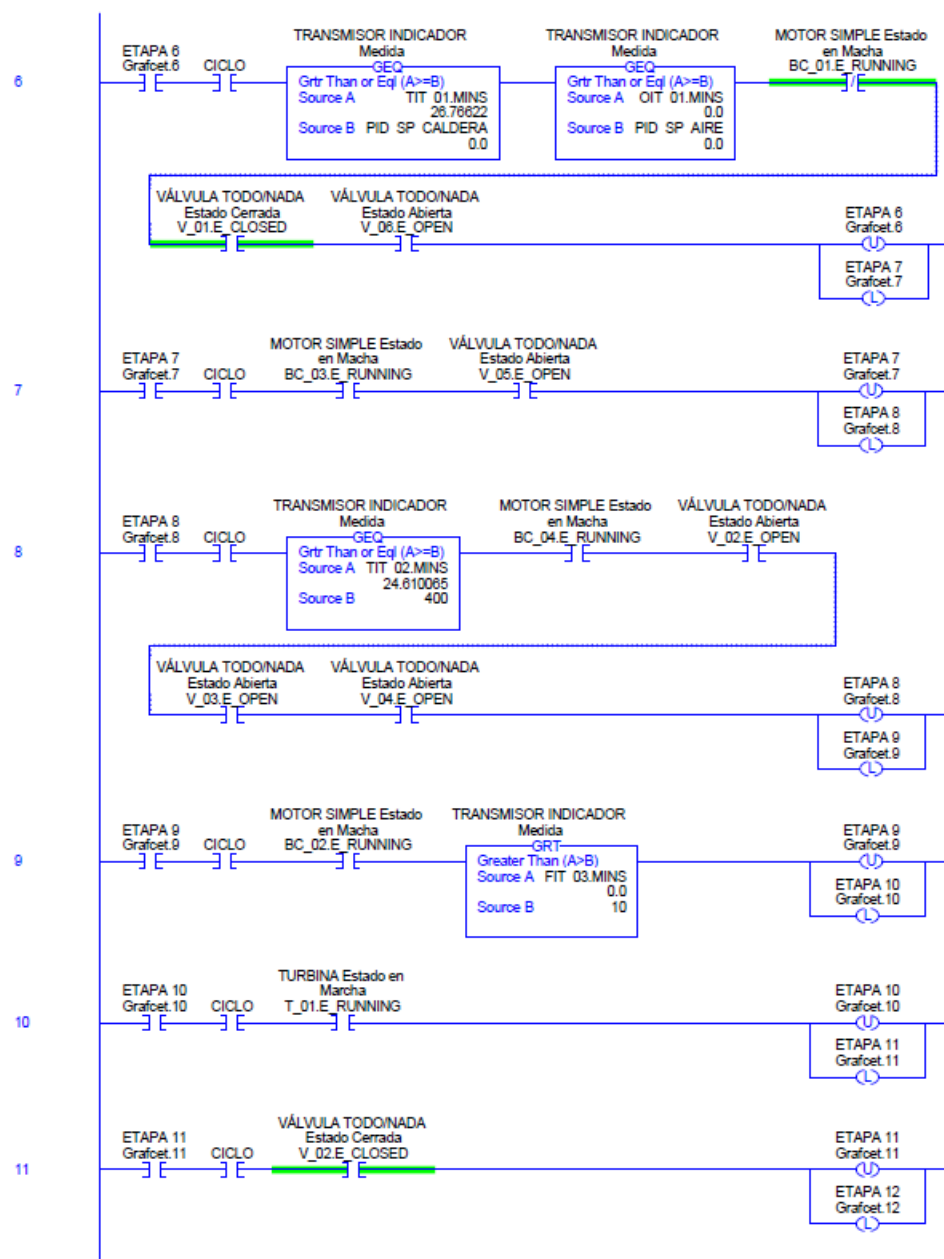
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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GRAFSET_PID - Ladder Diagram
TFG:MainTask:Control_Auto
Total number of rungs in routine: 24

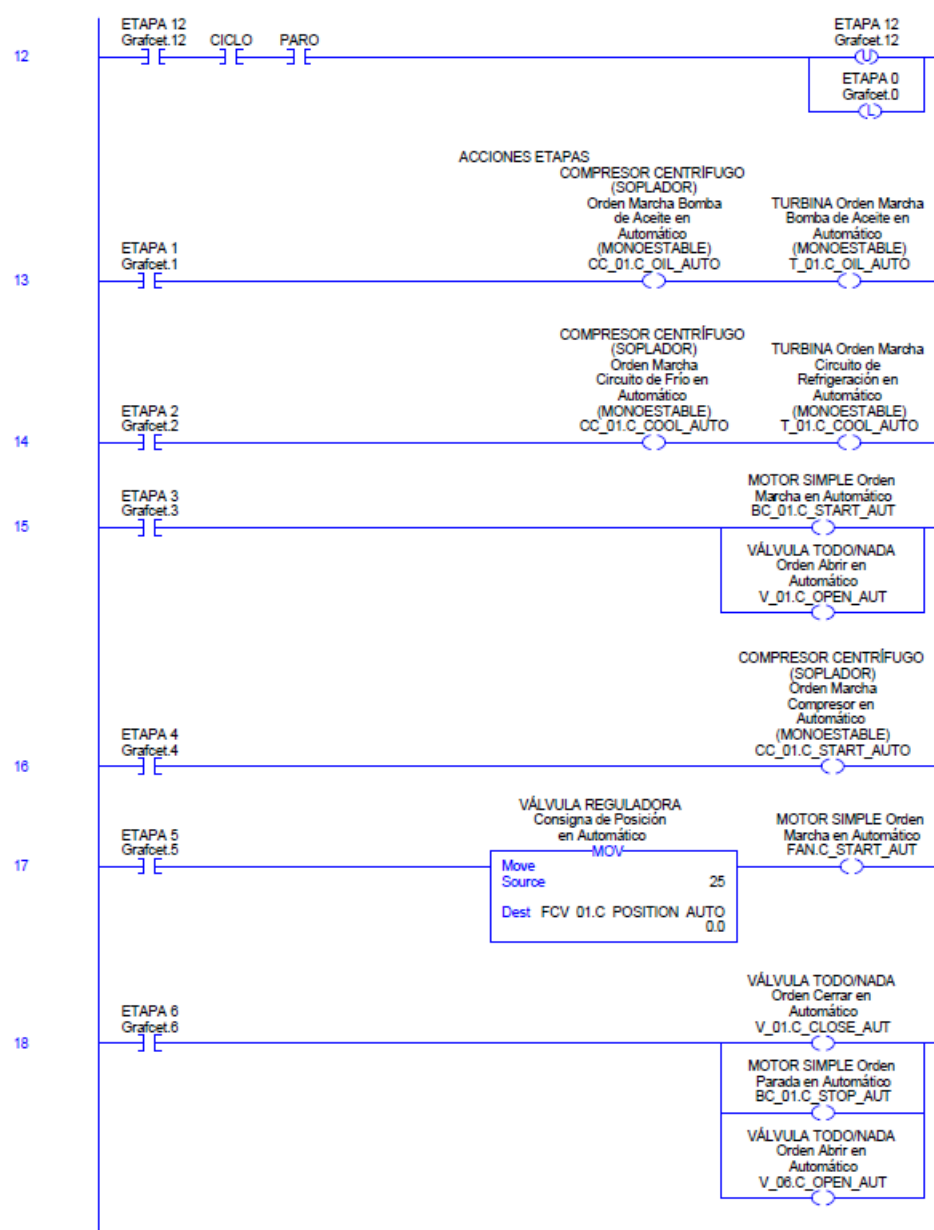
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GRAFCET_PID - Ladder Diagram
TFG:MainTask:Control_Auto
Total number of rungs in routine: 24

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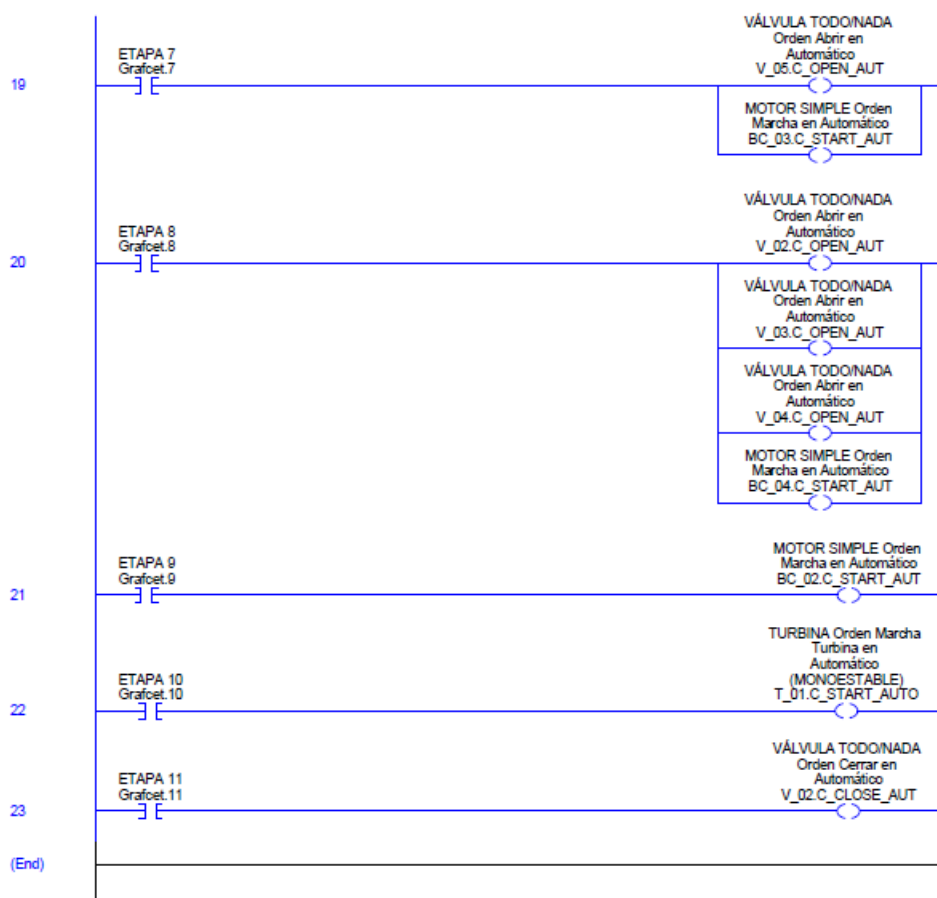


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GRAFSET_PID - Ladder Diagram
TFG:MainTask:Control_Auto
Total number of rungs in routine: 24

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GRAFSET PARO

GRAFSET_PARO - Ladder Diagram

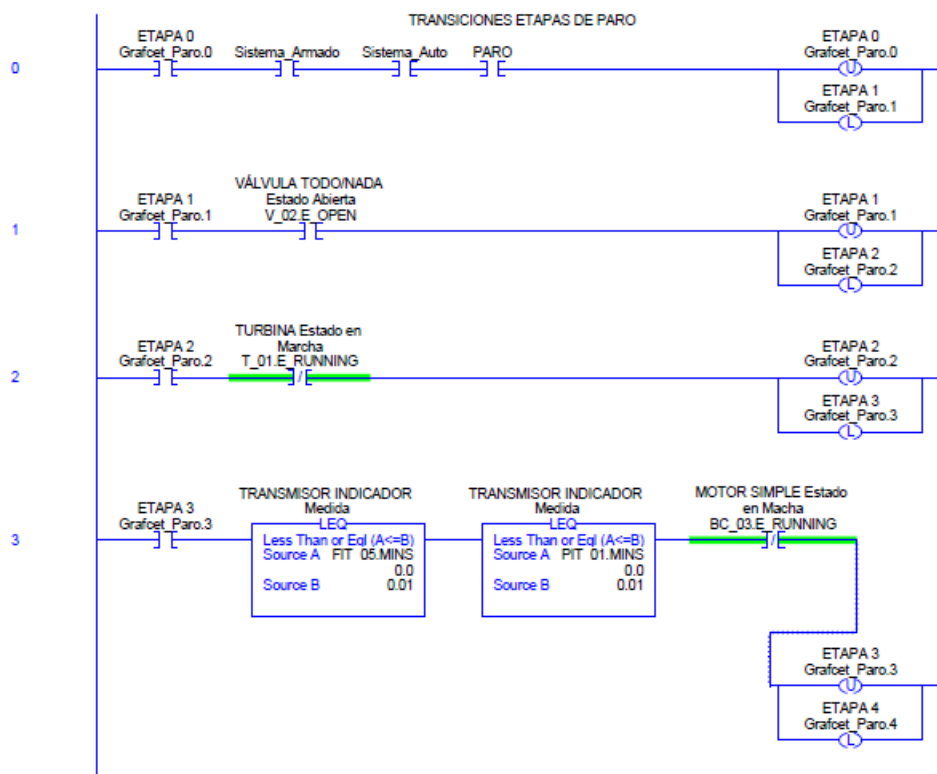
TFG:MainTask:Control_Auto

Total number of rungs in routine: 17

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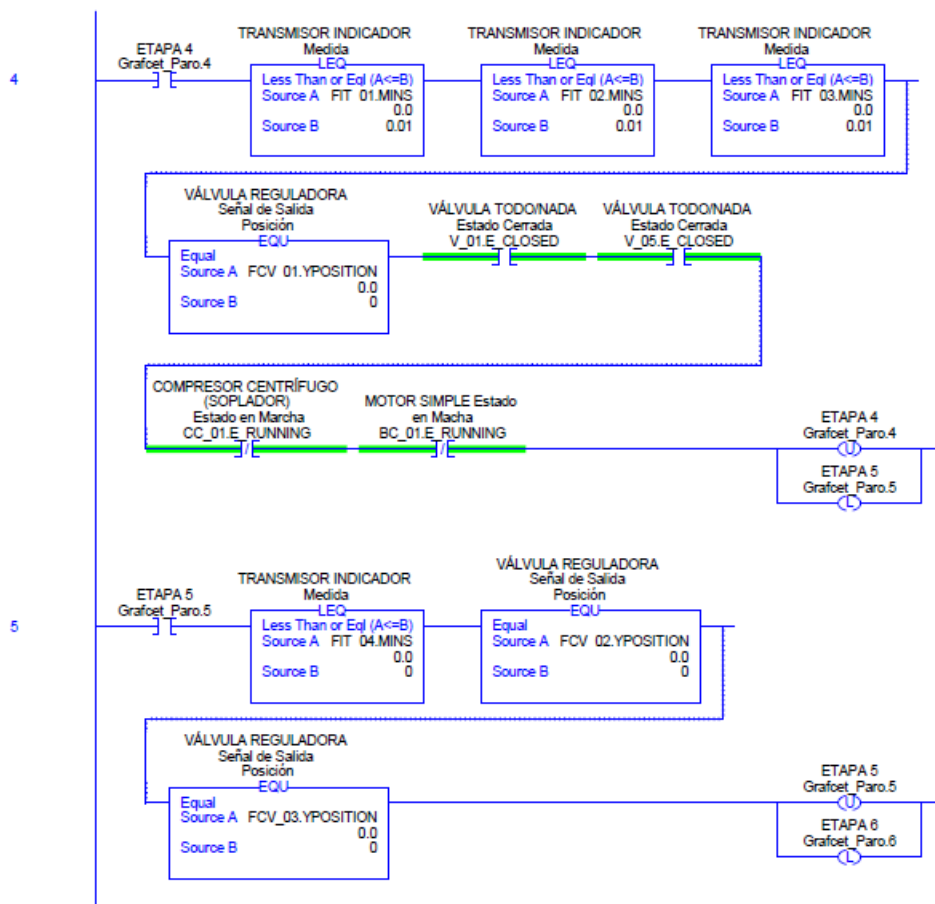
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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GRAFSET_PARO - Ladder Diagram
TFG:MainTask:Control_Auto
Total number of rungs in routine: 17

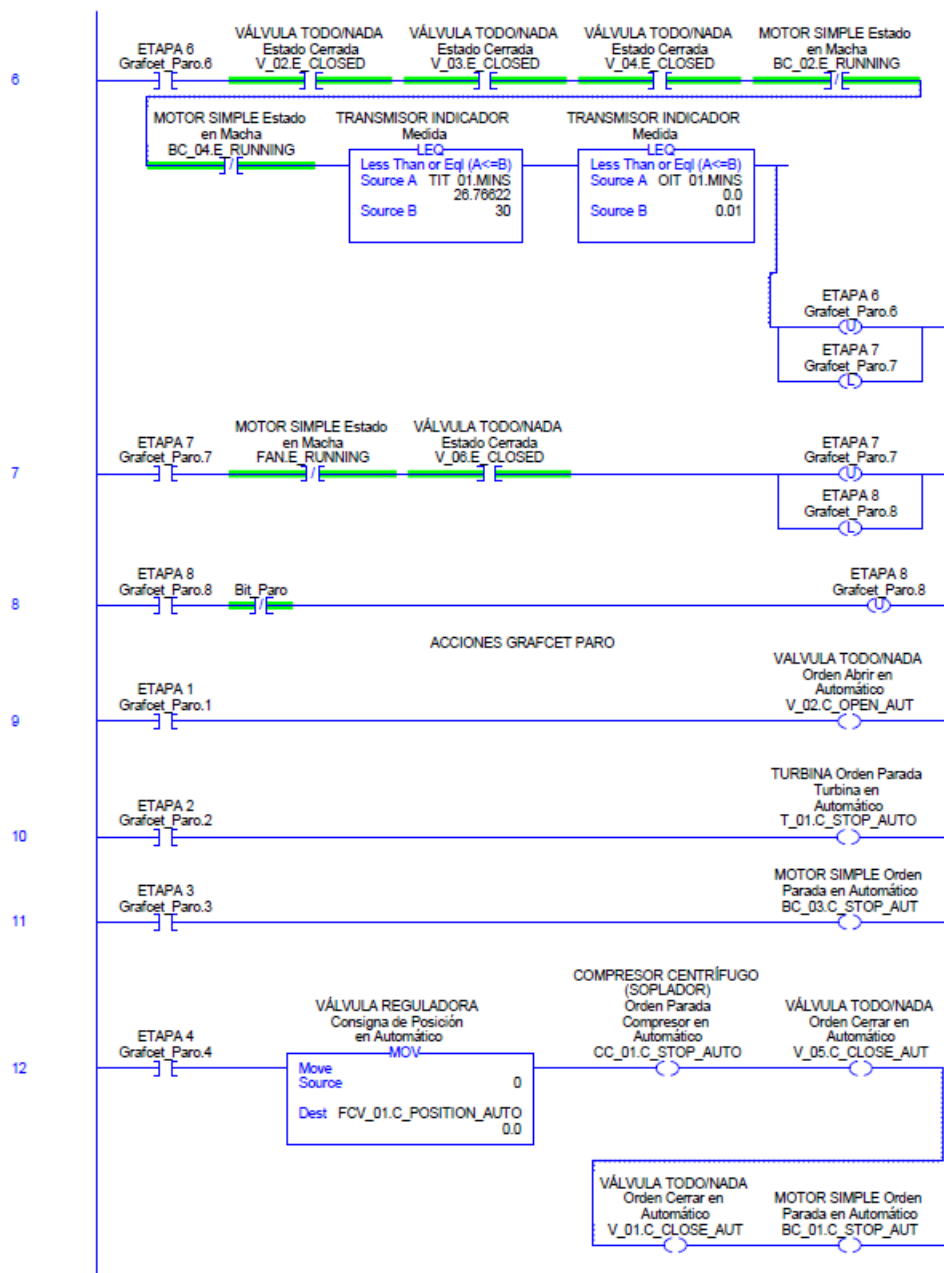
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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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GRAFSET_PARO - Ladder Diagram
TFG:MainTask:Control_Auto
Total number of rungs in routine: 17

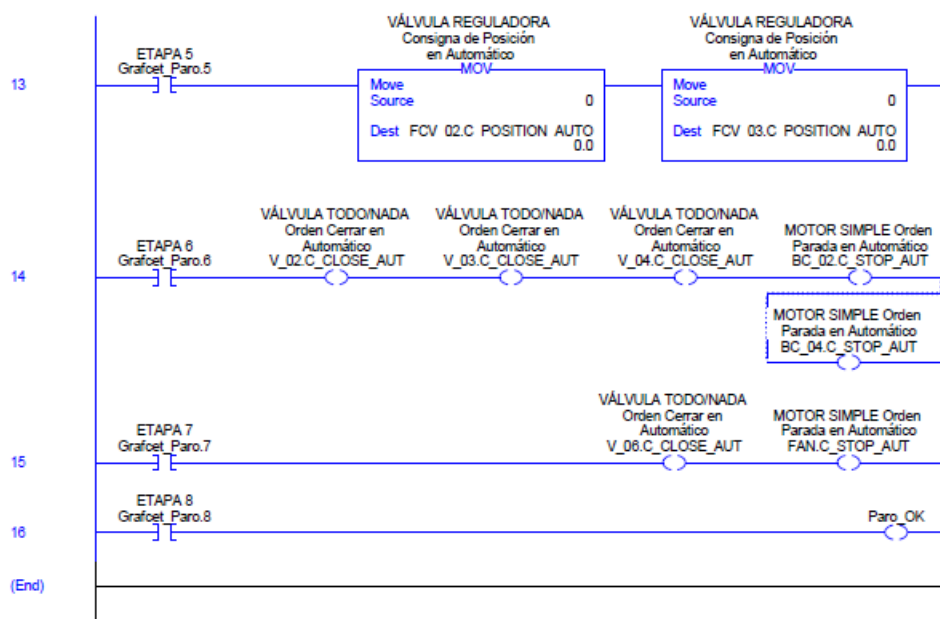
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GRAFSET_PARO - Ladder Diagram
TFG:MainTask:Control_Auto
Total number of rungs in routine: 17

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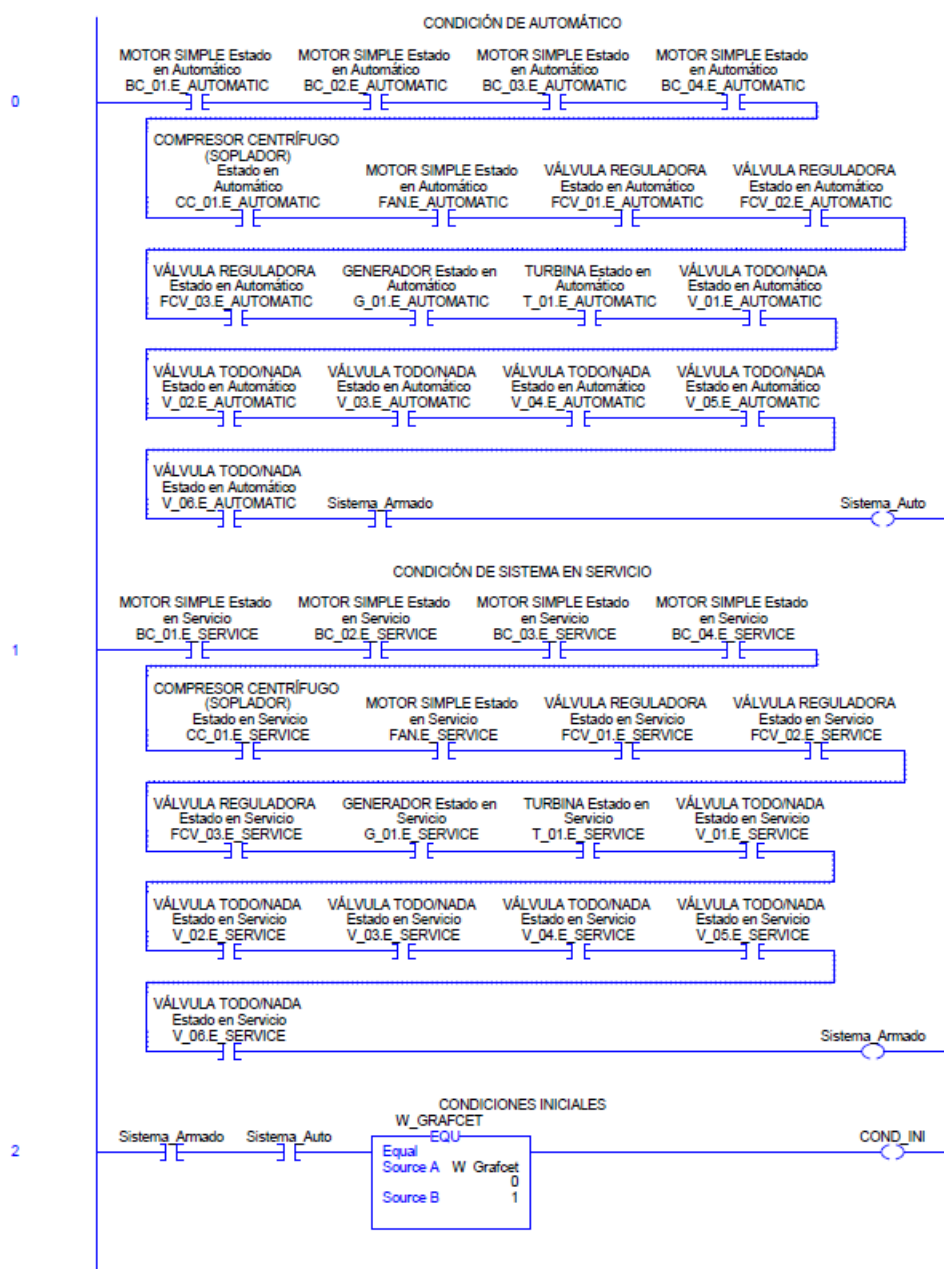


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MANDO

MANDO - Ladder Diagram
TFG:MainTask:Control_Auto
Total number of rungs in routine: 12

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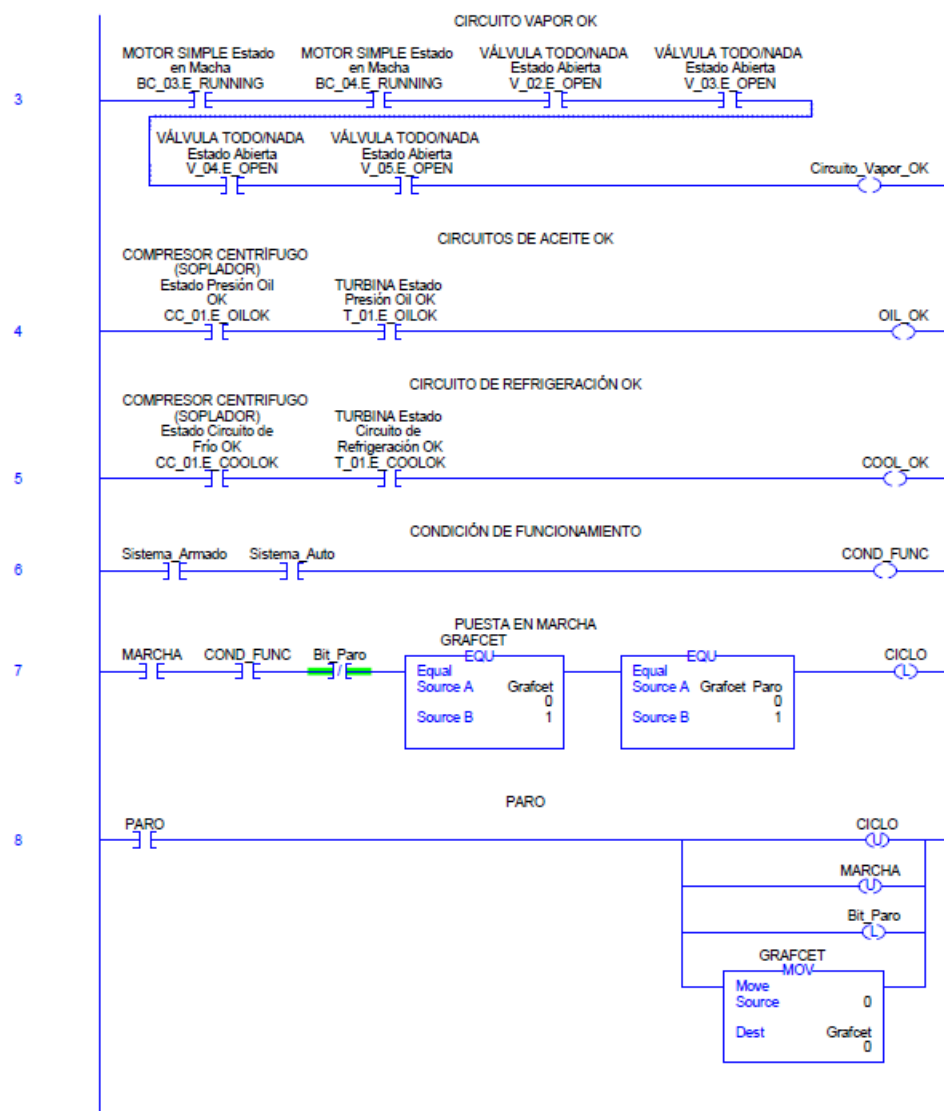


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MANDO - Ladder Diagram
TFG:MainTask:Control_Auto
Total number of rungs in routine: 12

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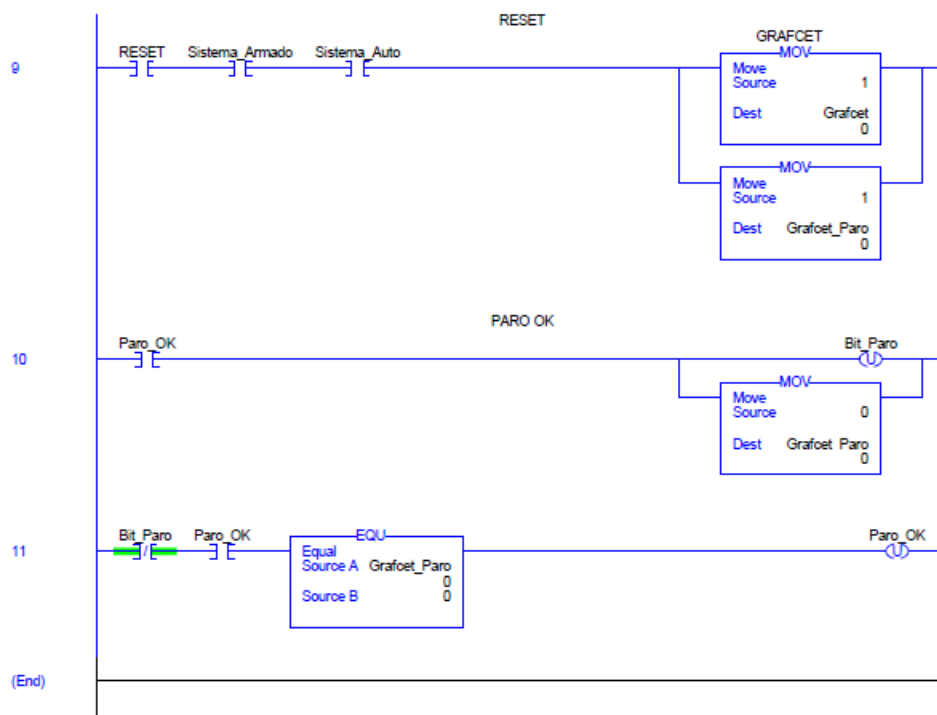
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG-ACD



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MANDO - Ladder Diagram
TFG:MainTask:Control_Auto
Total number of rungs in routine: 12

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PID

PID - Ladder Diagram

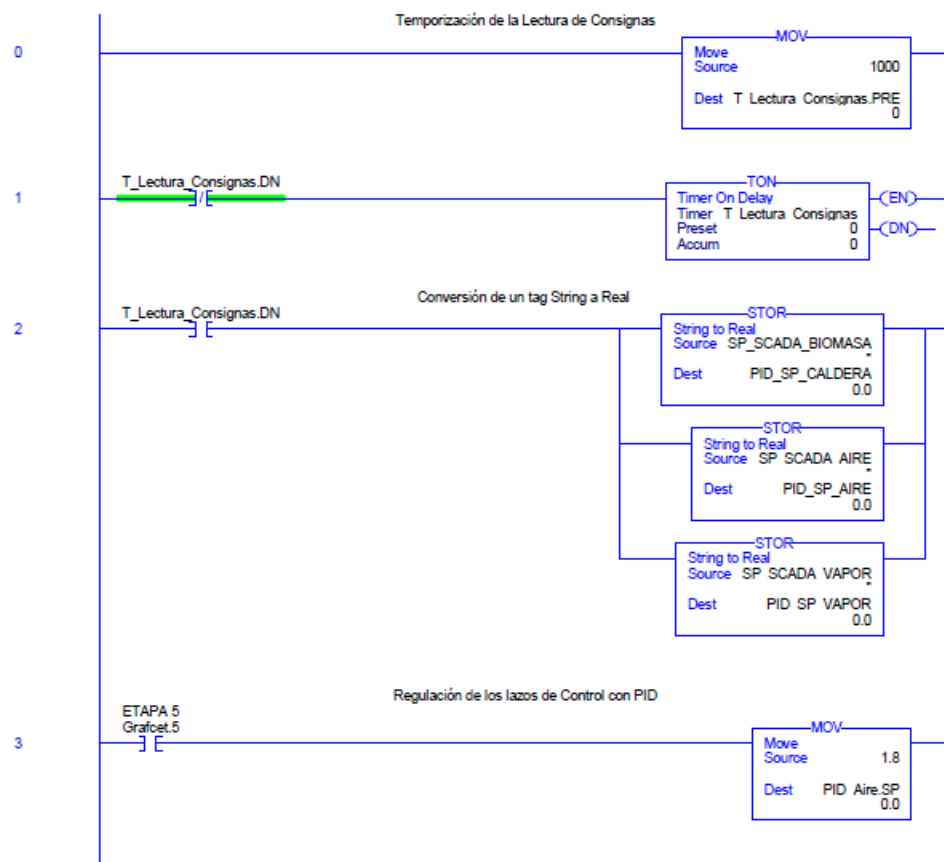
TFG:MainTask:Control_Auto

Total number of rungs in routine: 7

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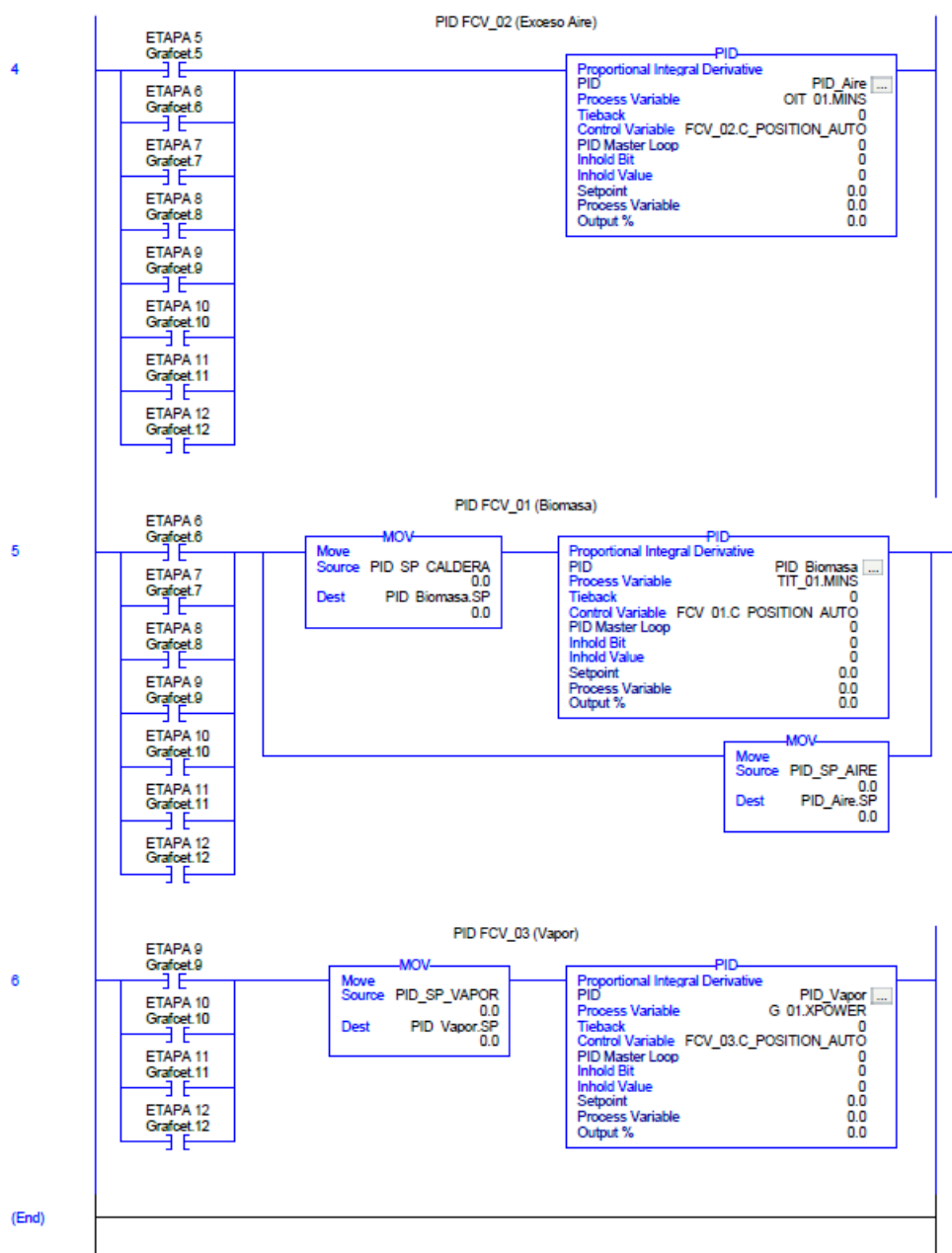
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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PID - Ladder Diagram
TFG:MainTask:Control_Auto
Total number of rungs: 7

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1.1.3. Simulación

PROGRAM TAGS

TFG - Program Tag Listing
TFG (Controller)

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Name	Value	Data Type	Scope
AI01_AUX	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI01_AUX - Planta_Simulacion/_30_Caldera - *16(Oscillation), 16(LES), 16(MOV)			
AI01_AUX2	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI01_AUX2 - Planta_Simulacion/_30_Caldera - *19(Oscillation), 19(LES), 19(MOV)			
AI01_AUX3	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI01_AUX3 - Planta_Simulacion/_30_Caldera - *20(Oscillation), 20(LES), 20(MOV)			
AI02_AUX	24.610065	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI02_AUX - Planta_Simulacion/_30_Caldera - *18(Oscillation), 18(LES), 18(MOV)			
AI03_AUX	24.615065	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI03_AUX - Planta_Simulacion/_70_Circuito_Vapor - *7(Oscillation), 7(LES), 7(MOV)			
AI04_AUX	0.62999964	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI04_AUX - Planta_Simulacion/_10_Loops - *3(Oscillation), 3(GRT), 3(LES), 3(MOV)			
AI05_AUX	0.62999964	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI05_AUX - Planta_Simulacion/_10_Loops - *4(Oscillation), 4(GRT), 4(LES), 4(MOV)			
AI06_AUX	0.62999964	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI06_AUX - Planta_Simulacion/_10_Loops - *5(Oscillation), 5(GRT), 5(LES), 5(MOV)			
AI07_AUX	0.6399996	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI07_AUX - Planta_Simulacion/_70_Circuito_Vapor - *10(Oscillation), 10(LES), 10(MOV)			
AI08_AUX	-0.3849998	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI08_AUX - Planta_Simulacion/_70_Circuito_Vapor - *5(Oscillation), 5(LEQ), 5(MOV)			
AI09_AUX	0.6399996	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI09_AUX - Planta_Simulacion/_80_Combustible_AUX - *1(FirstOrder), *1(Oscillation), 1(GRT), 1(LES), 1(MOV)			
AI10_AUX	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI10_AUX - Planta_Simulacion/_70_Circuito_Vapor - *9(Oscillation), 9(LES), 9(MOV)			
AI16_AUX	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
AI16_AUX - Planta_Simulacion/_90_Turbina - *1(Oscillation), 1(LEQ), 1(MOV)			
Aire_NoRange	0.0	REAL	Planta_Simulacion
Constant	No		

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TFG - Program Tag Listing
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Aire_NoRange (Continued)			
External Access:	Read/Write		
<i>Aire_NoRange - Planta_Simulacion/_30_Caldera - *20(MOV), 20(ADD)</i>			
Aire_Porcentaje	1.5	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Aire_Porcentaje - Planta_Simulacion/_30_Caldera - *12(DIV), 14(EQU), 15(GRT), 15(LES), 15(MOV), 15(NEQ)</i>			
Aire_Range	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Aire_Range - Planta_Simulacion/_30_Caldera - *19(MOV), 19(ADD)</i>			
B_FIT_01_XALARM	0	BOOL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>B_FIT_01_XALARM - Planta_Simulacion/_60_Transmisor_Indicador - 3(XIC)</i>			
B_FIT_02_XALARM	0	BOOL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>B_FIT_02_XALARM - Planta_Simulacion/_60_Transmisor_Indicador - 4(XIC)</i>			
B_FIT_03_XALARM	0	BOOL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>B_FIT_03_XALARM - Planta_Simulacion/_60_Transmisor_Indicador - 5(XIC)</i>			
B_FIT_04_XALARM	0	BOOL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>B_FIT_04_XALARM - Planta_Simulacion/_60_Transmisor_Indicador - 6(XIC)</i>			
B_FIT_05_XALARM	0	BOOL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>B_FIT_05_XALARM - Planta_Simulacion/_60_Transmisor_Indicador - 7(XIC)</i>			
B_FIT_06_XALARM	0	BOOL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>B_FIT_06_XALARM - Planta_Simulacion/_60_Transmisor_Indicador - 8(XIC)</i>			
B_OIT_01_XALARM	0	BOOL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>B_OIT_01_XALARM - Planta_Simulacion/_60_Transmisor_Indicador - 0(XIC)</i>			
B_PIT_01_XALARM	0	BOOL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>B_PIT_01_XALARM - Planta_Simulacion/_60_Transmisor_Indicador - 9(XIC)</i>			
B_TIT_01_XALARM	0	BOOL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>B_TIT_01_XALARM - Planta_Simulacion/_60_Transmisor_Indicador - 1(XIC)</i>			
B_TIT_02_XALARM	0	BOOL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>B_TIT_02_XALARM - Planta_Simulacion/_60_Transmisor_Indicador - 2(XIC)</i>			
Biomasa	24.610065	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Biomasa - Planta_Simulacion/_30_Caldera - *18(MOV), 19(ADD), 20(ADD)</i>			

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TFG - Program Tag Listing
TFG (Controller)

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Biomasa_Porcentaje	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Biomasa_Porcentaje - Planta_Simulacion/_30_Caldera - *13(DIV), 17(GRT), 17(LES), 17(MOV)</i>			
Carga_Aire	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Carga_Aire - Planta_Simulacion/_30_Caldera - *10(ADD), *23(MOV), *23(SUB), 10(ADD), 10(LEQ), 12(DIV), 23(LEQ), 23(SUB)</i>			
Carga_Aire_MAX	3100.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Carga_Aire_MAX - Planta_Simulacion/_30_Caldera - *7(MOV), 10(LEQ)</i>			
Carga_Biomasa	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Carga_Biomasa - Planta_Simulacion/_30_Caldera - *23(MOV), *23(SUB), *24(MOV), *24(SUB), *9(ADD), 11(GRT), 11(LES), 12(DIV), 13(DIV), 23(LEQ), 23(SUB), 24(LEQ), 24(SUB), 9(ADD), 9(LEQ)</i>			
Carga_Biomasa_MAX	2100.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Carga_Biomasa_MAX - Planta_Simulacion/_30_Caldera - *6(MOV), 13(DIV), 9(LEQ)</i>			
Carga_Vapor	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Carga_Vapor - Planta_Simulacion/_10_Loops - *5(MOV), *5(SUB), 5(LEQ), 5(SUB)</i>			
<i>Carga_Vapor - Planta_Simulacion/_70_Circuito_Vapor - *5(ADD), 5(ADD), 5(GEQ), 5(MOV), 7(GEQ), 7(LEQ), 9(DIV)</i>			
Carga_Vapor_AUX	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Carga_Vapor_AUX - Planta_Simulacion/_70_Circuito_Vapor - *5(MOV), 5(MOV)</i>			
Carga_Vapor_MAX	4000.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Carga_Vapor_MAX - Planta_Simulacion/_70_Circuito_Vapor - *5(MOV), 5(GEQ), 9(DIV)</i>			
Caudal_Cenizas	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Caudal_Cenizas - Planta_Simulacion/_30_Caldera - *24(MOV), *24(Oscillation), 24(LES), 24(SUB)</i>			
Caudal_Humos_Aire	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Caudal_Humos_Aire - Planta_Simulacion/_30_Caldera - *23(MOV), *23(Oscillation), 23(LES), 23(SUB)</i>			
Caudal_Humos_Biomasa	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Caudal_Humos_Biomasa - Planta_Simulacion/_30_Caldera - *23(MOV), *23(Oscillation), 23(LES), 23(SUB)</i>			
CC1		CentrifugalCompressor	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>CC1 - Planta_Simulacion/_20_Compresor_Aire - *0(CentrifugalCompressor)</i>			
CC1.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
CC1.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
CC1.DO01	0	BOOL	
Start			
CC1.DO02	0	BOOL	

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TFG - Program Tag Listing
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CC1 (Continued)			
Reset			
CC1.DO03	0	BOOL	
YCool			
CC1.DO04	0	BOOL	
YOil			
Combustible_AUX	1.9199989	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Combustible_AUX - Planta_Simulacion/_30_Caldera - 19(ADD), 20(ADD)</i>			
<i>Combustible_AUX - Planta_Simulacion/_30_Combustible_AUX - *1(MOV)</i>			
Contador	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Contador - Planta_Simulacion/_30_Caldera - *11(ADD), 11(ADD)</i>			
Delay1		Delay	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Delay1 - Planta_Simulacion/_10_Loops - *3(Delay)</i>			
Delay1.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
Delay1.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
Delay1.Input	0.0	REAL	
<i>Delay1.Input - Planta_Simulacion/_10_Loops - *3(MOV)</i>			
Delay1.Output	0.0	REAL	
<i>Delay1.Output - Planta_Simulacion/_10_Loops - *3(FirstOrder)</i>			
Delay2		Delay	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Delay2 - Planta_Simulacion/_10_Loops - *4(Delay)</i>			
Delay2.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
Delay2.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
Delay2.Input	0.0	REAL	
<i>Delay2.Input - Planta_Simulacion/_10_Loops - *4(MOV)</i>			
Delay2.Output	0.0	REAL	
<i>Delay2.Output - Planta_Simulacion/_10_Loops - *4(FirstOrder)</i>			
Delay3		Delay	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Delay3 - Planta_Simulacion/_30_Caldera - *16(Delay)</i>			
Delay3.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Delay3.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Delay3.Input	0.0	REAL	
<i>Delay3.Input - Planta_Simulacion/_30_Caldera - *14(MOV), *15(MOV), 19(GRT), 19(LES), 20(GRT), 20(LES)</i>			
Delay3.Output	0.0	REAL	
<i>Delay3.Output - Planta_Simulacion/_30_Caldera - *16(FirstOrder)</i>			
Delay4		Delay	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Delay4 - Planta_Simulacion/_30_Caldera - *18(Delay)</i>			
Delay4.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Delay4.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Delay4.Input	0.0	REAL	
<i>Delay4.Input - Planta_Simulacion/_30_Caldera - *17(MOV)</i>			
Delay4.Output	0.0	REAL	

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Delay4 (Continued)		
<i>Delay4.Output - Planta_Simulacion/_30_Caldera - *18(FirstOrder)</i>		
Delay5	Delay	Planta_Simulacion
Constant	No	
External Access:	Read/Write	
<i>Delay5 - Planta_Simulacion/_30_Caldera - *19(Delay), *20(Delay)</i>		
Delay5.EnableIn	1	BOOL
Enable Input - System Defined Parameter		
Delay5.EnableOut	1	BOOL
Enable Output - System Defined Parameter		
Delay5.Input	0.0	REAL
<i>Delay5.Input - Planta_Simulacion/_30_Caldera - *16(MOV)</i>		
Delay5.Output	0.0	REAL
<i>Delay5.Output - Planta_Simulacion/_30_Caldera - *19(FirstOrder), *20(FirstOrder)</i>		
Delay6	Delay	Planta_Simulacion
Constant	No	
External Access:	Read/Write	
<i>Delay6 - Planta_Simulacion/_30_Caldera - *23(Delay)</i>		
Delay6.EnableIn	0	BOOL
Enable Input - System Defined Parameter		
Delay6.EnableOut	0	BOOL
Enable Output - System Defined Parameter		
Delay6.Output	0.0	REAL
<i>Delay6.Output - Planta_Simulacion/_30_Caldera - *23(FirstOrder), *23(FirstOrder)</i>		
Delay7	Delay	Planta_Simulacion
Constant	No	
External Access:	Read/Write	
<i>Delay7 - Planta_Simulacion/_30_Caldera - *24(Delay)</i>		
Delay7.EnableIn	0	BOOL
Enable Input - System Defined Parameter		
Delay7.EnableOut	0	BOOL
Enable Output - System Defined Parameter		
Delay7.Output	0.0	REAL
<i>Delay7.Output - Planta_Simulacion/_30_Caldera - *24(FirstOrder)</i>		
Delay8	Delay	Planta_Simulacion
Constant	No	
External Access:	Read/Write	
<i>Delay8 - Planta_Simulacion/_10_Loops - *5(Delay)</i>		
Delay8.EnableIn	0	BOOL
Enable Input - System Defined Parameter		
Delay8.EnableOut	0	BOOL
Enable Output - System Defined Parameter		
Delay8.Input	0.0	REAL
<i>Delay8.Input - Planta_Simulacion/_10_Loops - *5(MOV)</i>		
Delay8.Output	0.0	REAL
<i>Delay8.Output - Planta_Simulacion/_10_Loops - *5(FirstOrder)</i>		
Delay9	Delay	Planta_Simulacion
Constant	No	
External Access:	Read/Write	
<i>Delay9 - Planta_Simulacion/_70_Circuito_Vapor - *5(Delay)</i>		
Delay9.EnableIn	1	BOOL
Enable Input - System Defined Parameter		
Delay9.EnableOut	1	BOOL
Enable Output - System Defined Parameter		
Delay9.Input	0.0	REAL
<i>Delay9.Input - Planta_Simulacion/_70_Circuito_Vapor - *5(FirstOrder), *5(MOV)</i>		
Delay10	Delay	Planta_Simulacion
Constant	No	
External Access:	Read/Write	
<i>Delay10 - Planta_Simulacion/_70_Circuito_Vapor - *7(Delay)</i>		
Delay10.EnableIn	1	BOOL
Enable Input - System Defined Parameter		

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Delay10 (Continued)			
Delay10.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Delay10.Input	0.0	REAL	
Delay10.Input - Planta_Simulacion/_70_Circuito_Vapor - *7(MOV)			
Delay10.Output	0.0	REAL	
Delay10.Output - Planta_Simulacion/_70_Circuito_Vapor - *7(FirstOrder)			
Delay11		Delay	Planta_Simulacion
Constant No			
External Access: Read/Write			
Delay11 - Planta_Simulacion/_70_Circuito_Vapor - *9(Delay)			
Delay11.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Delay11.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Delay11.Input	0.0	REAL	
Delay11.Input - Planta_Simulacion/_70_Circuito_Vapor - *9(DIV)			
Delay11.Output	0.0	REAL	
Delay11.Output - Planta_Simulacion/_70_Circuito_Vapor - *9(FirstOrder)			
Delay12		Delay	Planta_Simulacion
Constant No			
External Access: Read/Write			
Delay12 - Planta_Simulacion/_70_Circuito_Vapor - *10(Delay)			
Delay12.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Delay12.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Delay12.Input	0.0	REAL	
Delay12.Input - Planta_Simulacion/_70_Circuito_Vapor - *10(MOV)			
Delay12.Output	0.0	REAL	
Delay12.Output - Planta_Simulacion/_70_Circuito_Vapor - *10(FirstOrder)			
Delay14		Delay	Planta_Simulacion
Constant No			
External Access: Read/Write			
Delay14 - Planta_Simulacion/_30_Caldera - *21(Delay)			
Delay14.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Delay14.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Delay14.Input	26.530064	REAL	
Delay14.Input - Planta_Simulacion/_30_Caldera - *19(ADD), *20(ADD)			
Delay14.Output	26.530064	REAL	
Delay14.Output - Planta_Simulacion/_30_Caldera - *21(FirstOrder)			
Delay17		Delay	Planta_Simulacion
Constant No			
External Access: Read/Write			
Delay17 - Planta_Simulacion/_70_Circuito_Vapor - *6(Delay)			
Delay17.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Delay17.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Delay17.Input	4000.0	REAL	
Delay17.Input - Planta_Simulacion/_70_Circuito_Vapor - *5(MOV)			
Delay17.Output	4000.0	REAL	
Delay17.Output - Planta_Simulacion/_70_Circuito_Vapor - *6(FirstOrder)			
Delay18		Delay	Planta_Simulacion
Constant No			
External Access: Read/Write			
Delay18 - Planta_Simulacion/_30_Combustible_AUX - *1(Delay)			
Delay18.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Delay18.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			

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Delay18 (Continued)			
Delay18.Input	0.0	REAL	
<i>Delay18.Input - Planta_Simulacion/_70_Circuito_Vapor - *5(MOV)</i>			
<i>Delay18.Input - Planta_Simulacion/_80_Combustible_AUX - *1(MOV), 1(EQU)</i>			
Delay18.Output	0.0	REAL	
<i>Delay18.Output - Planta_Simulacion/_80_Combustible_AUX - *1(FirstOrder)</i>			
Delay20		Delay	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Delay20 - Planta_Simulacion/_90_Turbina - *1(Delay)</i>			
Delay20.EnableIn	1	BOOL	
<i>Enable Input - System Defined Parameter</i>			
Delay20.EnableOut	1	BOOL	
<i>Enable Output - System Defined Parameter</i>			
Delay20.Input	0.0	REAL	
<i>Delay20.Input - Planta_Simulacion/_90_Turbina - *1(MOV)</i>			
Delay20.Output	0.0	REAL	
<i>Delay20.Output - Planta_Simulacion/_90_Turbina - *1(FirstOrder)</i>			
Deposito	4000.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Deposito - Planta_Simulacion/_70_Circuito_Vapor - *10(ADD), *10(MOV), *5(MOV), *5(SUB), 10(ADD), 10(GRT), 5(LEQ), 5(MOV), 5(SUB)</i>			
Deposito_AUX	4000.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Deposito_AUX - Planta_Simulacion/_70_Circuito_Vapor - *5(MOV), 5(MOV)</i>			
Deposito_Interm_Vapor	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Deposito_Interm_Vapor - Planta_Simulacion/_10_Loops - *5(ADD), 5(ADD)</i>			
<i>Deposito_Interm_Vapor - Planta_Simulacion/_70_Circuito_Vapor - *10(SUB), 10(GEQ), 10(LEQ), 10(SUB)</i>			
Deposito_MAX	4000.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Deposito_MAX - Planta_Simulacion/_70_Circuito_Vapor - *4(MOV), 10(GRT), 10(MOV)</i>			
Deposito_vacio	0	BOOL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Deposito_vacio - Planta_Simulacion/_70_Circuito_Vapor - *5(OTE), 5(XIC), 5(XIO)</i>			
FirstOrder1		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder1 - Planta_Simulacion/_10_Loops - *3(FirstOrder)</i>			
FirstOrder1.EnableIn	0	BOOL	
<i>Enable Input - System Defined Parameter</i>			
FirstOrder1.EnableOut	0	BOOL	
<i>Enable Output - System Defined Parameter</i>			
FirstOrder1.Output	0.0	REAL	
<i>FirstOrder1.Output - Planta_Simulacion/_10_Loops - *3(Oscillation), 3(EQU)</i>			
FirstOrder2		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder2 - Planta_Simulacion/_10_Loops - *4(FirstOrder)</i>			
FirstOrder2.EnableIn	0	BOOL	
<i>Enable Input - System Defined Parameter</i>			
FirstOrder2.EnableOut	0	BOOL	
<i>Enable Output - System Defined Parameter</i>			
FirstOrder2.Output	0.0	REAL	
<i>FirstOrder2.Output - Planta_Simulacion/_10_Loops - *4(Oscillation), 4(EQU)</i>			

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FirstOrder3		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder3 - Planta_Simulacion/_30_Caldera - *16(FirstOrder)</i>			
FirstOrder3.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
FirstOrder3.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
FirstOrder3.Output	0.0	REAL	
<i>FirstOrder3.Output - Planta_Simulacion/_30_Caldera - *16(Oscillation), 16(EQU)</i>			
FirstOrder4		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder4 - Planta_Simulacion/_30_Caldera - *18(FirstOrder)</i>			
FirstOrder4.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
FirstOrder4.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
FirstOrder4.Output	25.0	REAL	
<i>FirstOrder4.Output - Planta_Simulacion/_30_Caldera - *18(Oscillation), 18(EQU)</i>			
FirstOrder5		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder5 - Planta_Simulacion/_30_Caldera - *19(FirstOrder)</i>			
FirstOrder5.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
FirstOrder5.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
FirstOrder5.Output	0.0	REAL	
<i>FirstOrder5.Output - Planta_Simulacion/_30_Caldera - *19(Oscillation)</i>			
FirstOrder6		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder6 - Planta_Simulacion/_30_Caldera - *23(FirstOrder)</i>			
FirstOrder6.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
FirstOrder6.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
FirstOrder6.Output	0.0	REAL	
<i>FirstOrder6.Output - Planta_Simulacion/_30_Caldera - *23(Oscillation)</i>			
FirstOrder7		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder7 - Planta_Simulacion/_30_Caldera - *24(FirstOrder)</i>			
FirstOrder7.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
FirstOrder7.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
FirstOrder7.Output	0.0	REAL	
<i>FirstOrder7.Output - Planta_Simulacion/_30_Caldera - *24(Oscillation)</i>			
FirstOrder8		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder8 - Planta_Simulacion/_10_Loops - *5(FirstOrder)</i>			
FirstOrder8.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
FirstOrder8.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
FirstOrder8.Output	0.0	REAL	
<i>FirstOrder8.Output - Planta_Simulacion/_10_Loops - *5(Oscillation), 5(EQU)</i>			
FirstOrder9		FirstOrder	Planta_Simulacion
Constant	No		

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FirstOrder9 (Continued)			
External Access:	Read/Write		
<i>FirstOrder9 - Planta_Simulacion/_70_Circuito_Vapor - *5(FirstOrder)</i>			
FirstOrder9.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
FirstOrder9.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
FirstOrder9.Output	0.0	REAL	
<i>FirstOrder9.Output - Planta_Simulacion/_70_Circuito_Vapor - *5(Oscillation), 5(EQU)</i>			
FirstOrder10		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder10 - Planta_Simulacion/_70_Circuito_Vapor - *7(FirstOrder)</i>			
FirstOrder10.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
FirstOrder10.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
FirstOrder10.Output	25.0	REAL	
<i>FirstOrder10.Output - Planta_Simulacion/_70_Circuito_Vapor - *7(Oscillation), 7(EQU)</i>			
FirstOrder11		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder11 - Planta_Simulacion/_70_Circuito_Vapor - *9(FirstOrder)</i>			
FirstOrder11.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
FirstOrder11.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
FirstOrder11.Output	0.0	REAL	
<i>FirstOrder11.Output - Planta_Simulacion/_70_Circuito_Vapor - *9(Oscillation)</i>			
FirstOrder12		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder12 - Planta_Simulacion/_70_Circuito_Vapor - *10(FirstOrder)</i>			
FirstOrder12.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
FirstOrder12.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
FirstOrder12.Output	0.0	REAL	
<i>FirstOrder12.Output - Planta_Simulacion/_70_Circuito_Vapor - *10(Oscillation), 10(EQU)</i>			
FirstOrder13		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder13 - Planta_Simulacion/_30_Caldera - *20(FirstOrder)</i>			
FirstOrder13.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
FirstOrder13.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
FirstOrder13.Output	0.0	REAL	
<i>FirstOrder13.Output - Planta_Simulacion/_30_Caldera - *20(Oscillation)</i>			
FirstOrder14		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>FirstOrder14 - Planta_Simulacion/_30_Caldera - *23(FirstOrder)</i>			
FirstOrder14.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
FirstOrder14.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
FirstOrder14.Output	0.0	REAL	
<i>FirstOrder14.Output - Planta_Simulacion/_30_Caldera - *23(Oscillation)</i>			
FirstOrder15		FirstOrder	Planta_Simulacion
Constant	No		
External Access:	Read/Write		

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FirstOrder15 (Continued)			
<i>FirstOrder15 - Planta_Simulacion/_30_Caldera - *21(FirstOrder)</i>			
FirstOrder15.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
FirstOrder15.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
FirstOrder15.Output	26.75076	REAL	
<i>FirstOrder15.Output - Planta_Simulacion/_30_Caldera - 21(MOV)</i>			
FirstOrder17			
Constant	No	FirstOrder	Planta_Simulacion
External Access: Read/Write			
<i>FirstOrder17 - Planta_Simulacion/_70_Circuito_Vapor - *6(FirstOrder)</i>			
FirstOrder17.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
FirstOrder17.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
FirstOrder17.Output	4000.0	REAL	
<i>FirstOrder17.Output - Planta_Simulacion/_70_Circuito_Vapor - 6(MOV)</i>			
FirstOrder18			
Constant	No	FirstOrder	Planta_Simulacion
External Access: Read/Write			
<i>FirstOrder18 - Planta_Simulacion/_80_Combustible_AUX - *1(FirstOrder)</i>			
FirstOrder18.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
FirstOrder18.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
FirstOrder18.Output	0.0	REAL	
<i>FirstOrder18.Output - Planta_Simulacion/_80_Combustible_AUX - *1(MOV), *1(Oscillation)</i>			
FirstOrder19			
Constant	No	FirstOrder	Planta_Simulacion
External Access: Read/Write			
<i>FirstOrder19 - Planta_Simulacion/_80_Combustible_AUX - *1(FirstOrder)</i>			
FirstOrder19.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
FirstOrder19.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
FirstOrder19.Output	1.8899989	REAL	
<i>FirstOrder19.Output - Planta_Simulacion/_80_Combustible_AUX - 1(LES), 1(MOV)</i>			
FirstOrder20			
Constant	No	FirstOrder	Planta_Simulacion
External Access: Read/Write			
<i>FirstOrder20 - Planta_Simulacion/_90_Turbina - *1(FirstOrder)</i>			
FirstOrder20.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
FirstOrder20.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
FirstOrder20.Output	0.0	REAL	
<i>FirstOrder20.Output - Planta_Simulacion/_90_Turbina - *1(Oscillation), 1(EQU)</i>			
M_BC_01			
Constant	No	Motor	Planta_Simulacion
External Access: Read/Write			
<i>M_BC_01 - Planta_Simulacion/_40_Motor - *1(Motor)</i>			
M_BC_01.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
M_BC_01.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
M_BC_01.TimeStart	1500	DINT	
<i>M_BC_01.TimeStart - Planta_Simulacion/_40_Motor - *0(MOV)</i>			
M_BC_01.DO01	0	BOOL	
YRESET			
M_BC_01.DO02	0	BOOL	
YSTART			
M_BC_01.DO03	0	BOOL	

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M_BC_01 (Continued)				
YSTOP				
M_BC_02		Motor		Planta_Simulacion
Constant	No			
External Access:	Read/Write			
<i>M_BC_02 - Planta_Simulacion/_40_Motor - *2(Motor)</i>				
M_BC_02.EnableIn	1	BOOL		
Enable Input - System Defined Parameter				
M_BC_02.EnableOut	1	BOOL		
Enable Output - System Defined Parameter				
M_BC_02.TimeStart	1500	DINT		
<i>M_BC_02.TimeStart - Planta_Simulacion/_40_Motor - *0(MOV)</i>				
M_BC_02.DO01	0	BOOL		
YRESET				
M_BC_02.DO02	0	BOOL		
YSTART				
M_BC_02.DO03	0	BOOL		
YSTOP				
M_BC_03		Motor		Planta_Simulacion
Constant	No			
External Access:	Read/Write			
<i>M_BC_03 - Planta_Simulacion/_40_Motor - *3(Motor)</i>				
M_BC_03.EnableIn	1	BOOL		
Enable Input - System Defined Parameter				
M_BC_03.EnableOut	1	BOOL		
Enable Output - System Defined Parameter				
M_BC_03.TimeStart	1500	DINT		
<i>M_BC_03.TimeStart - Planta_Simulacion/_40_Motor - *0(MOV)</i>				
M_BC_03.DO01	0	BOOL		
YRESET				
M_BC_03.DO02	0	BOOL		
YSTART				
M_BC_03.DO03	0	BOOL		
YSTOP				
M_BC_04		Motor		Planta_Simulacion
Constant	No			
External Access:	Read/Write			
<i>M_BC_04 - Planta_Simulacion/_40_Motor - *4(Motor)</i>				
M_BC_04.EnableIn	1	BOOL		
Enable Input - System Defined Parameter				
M_BC_04.EnableOut	1	BOOL		
Enable Output - System Defined Parameter				
M_BC_04.TimeStart	1500	DINT		
<i>M_BC_04.TimeStart - Planta_Simulacion/_40_Motor - *0(MOV)</i>				
M_BC_04.DO01	0	BOOL		
YRESET				
M_BC_04.DO02	0	BOOL		
YSTART				
M_BC_04.DO03	0	BOOL		
YSTOP				
M_FAN_01		Motor		Planta_Simulacion
Constant	No			
External Access:	Read/Write			
<i>M_FAN_01 - Planta_Simulacion/_40_Motor - *5(Motor)</i>				
M_FAN_01.EnableIn	1	BOOL		
Enable Input - System Defined Parameter				
M_FAN_01.EnableOut	1	BOOL		
Enable Output - System Defined Parameter				
M_FAN_01.TimeStart	1500	DINT		
<i>M_FAN_01.TimeStart - Planta_Simulacion/_40_Motor - *0(MOV)</i>				
M_FAN_01.DO01	0	BOOL		
YRESET				
M_FAN_01.DO02	0	BOOL		
YSTART				

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M_FAN_01 (Continued)			
M_FAN_01.DO03	0	BOOL	
YSTOP			
OnOff_Valvula1		OnOffValve	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>OnOff_Valvula1 - Planta_Simulacion/_50_OnOff_Valvula - *6(OnOffValve)</i>			
OnOff_Valvula1.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
OnOff_Valvula1.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
OnOff_Valvula1.TimeOpen	3500	DINT	
<i>OnOff_Valvula1.TimeOpen - Planta_Simulacion/_50_OnOff_Valvula - *0(MOV)</i>			
OnOff_Valvula1.TimeClose	3600	DINT	
<i>OnOff_Valvula1.TimeClose - Planta_Simulacion/_50_OnOff_Valvula - *0(MOV)</i>			
OnOff_Valvula1.DO01	0	BOOL	
YOPEN			
OnOff_Valvula1.DO02	0	BOOL	
YCLOSE			
OnOff_Valvula1.DO03	0	BOOL	
YRESET			
OnOff_Valvula2		OnOffValve	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>OnOff_Valvula2 - Planta_Simulacion/_50_OnOff_Valvula - *7(OnOffValve)</i>			
OnOff_Valvula2.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
OnOff_Valvula2.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
OnOff_Valvula2.TimeOpen	3500	DINT	
<i>OnOff_Valvula2.TimeOpen - Planta_Simulacion/_50_OnOff_Valvula - *1(MOV)</i>			
OnOff_Valvula2.TimeClose	3600	DINT	
<i>OnOff_Valvula2.TimeClose - Planta_Simulacion/_50_OnOff_Valvula - *1(MOV)</i>			
OnOff_Valvula2.DO01	0	BOOL	
YOPEN			
OnOff_Valvula2.DO02	0	BOOL	
YCLOSE			
OnOff_Valvula2.DO03	0	BOOL	
YRESET			
OnOff_Valvula3		OnOffValve	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>OnOff_Valvula3 - Planta_Simulacion/_50_OnOff_Valvula - *8(OnOffValve)</i>			
OnOff_Valvula3.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
OnOff_Valvula3.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
OnOff_Valvula3.TimeOpen	3500	DINT	
<i>OnOff_Valvula3.TimeOpen - Planta_Simulacion/_50_OnOff_Valvula - *2(MOV)</i>			
OnOff_Valvula3.TimeClose	3600	DINT	
<i>OnOff_Valvula3.TimeClose - Planta_Simulacion/_50_OnOff_Valvula - *2(MOV)</i>			
OnOff_Valvula3.DO01	0	BOOL	
YOPEN			
OnOff_Valvula3.DO02	0	BOOL	
YCLOSE			
OnOff_Valvula3.DO03	0	BOOL	
YRESET			
OnOff_Valvula4		OnOffValve	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>OnOff_Valvula4 - Planta_Simulacion/_50_OnOff_Valvula - *9(OnOffValve)</i>			
OnOff_Valvula4.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
OnOff_Valvula4.EnableOut	1	BOOL	

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OnOff_Valvula4 (Continued)			
Enable Output - System Defined Parameter			
OnOff_Valvula4.TimeOpen	3500	DINT	
<i>OnOff_Valvula4.TimeOpen - Planta_Simulacion/_50_OnOff_Valvula - *3(MOV)</i>			
OnOff_Valvula4.TimeClose	3600	DINT	
<i>OnOff_Valvula4.TimeClose - Planta_Simulacion/_50_OnOff_Valvula - *3(MOV)</i>			
OnOff_Valvula4.DO01	0	BOOL	
YOPEN			
OnOff_Valvula4.DO02	0	BOOL	
YCLOSE			
OnOff_Valvula4.DO03	0	BOOL	
YRESET			
OnOff_Valvula5		OnOffValve	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>OnOff_Valvula5 - Planta_Simulacion/_50_OnOff_Valvula - *10(OnOffValve)</i>			
OnOff_Valvula5.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
OnOff_Valvula5.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
OnOff_Valvula5.TimeOpen	3500	DINT	
<i>OnOff_Valvula5.TimeOpen - Planta_Simulacion/_50_OnOff_Valvula - *4(MOV)</i>			
OnOff_Valvula5.TimeClose	3600	DINT	
<i>OnOff_Valvula5.TimeClose - Planta_Simulacion/_50_OnOff_Valvula - *4(MOV)</i>			
OnOff_Valvula5.DO01	0	BOOL	
YOPEN			
OnOff_Valvula5.DO02	0	BOOL	
YCLOSE			
OnOff_Valvula5.DO03	0	BOOL	
YRESET			
OnOff_Valvula6		OnOffValve	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>OnOff_Valvula6 - Planta_Simulacion/_50_OnOff_Valvula - *11(OnOffValve)</i>			
OnOff_Valvula6.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
OnOff_Valvula6.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
OnOff_Valvula6.TimeOpen	3500	DINT	
<i>OnOff_Valvula6.TimeOpen - Planta_Simulacion/_50_OnOff_Valvula - *5(MOV)</i>			
OnOff_Valvula6.TimeClose	3600	DINT	
<i>OnOff_Valvula6.TimeClose - Planta_Simulacion/_50_OnOff_Valvula - *5(MOV)</i>			
OnOff_Valvula6.DO01	0	BOOL	
YOPEN			
OnOff_Valvula6.DO02	0	BOOL	
YCLOSE			
OnOff_Valvula6.DO03	0	BOOL	
YRESET			
Oscillation1		Oscillation	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Oscillation1 - Planta_Simulacion/_10_Loops - *3(Oscillation)</i>			
Oscillation1.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation1.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Oscillation1.Amplitude	2.0	REAL	
<i>Oscillation1.Amplitude - Planta_Simulacion/_10_Loops - *0(MOV)</i>			
Oscillation1.Rise	500.0	REAL	
<i>rep/ms</i>			
<i>Oscillation1.Rise - Planta_Simulacion/_10_Loops - *0(MOV)</i>			
Oscillation2		Oscillation	Planta_Simulacion
Constant	No		
External Access:	Read/Write		

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Oscillation2 (Continued)			
<i>Oscillation2 - Planta_Simulacion/_10_Loops - *4(Oscillation)</i>			
Oscillation2.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation2.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Oscillation2.Amplitude	2.0	REAL	
<i>Oscillation2.Amplitude - Planta_Simulacion/_10_Loops - *1(MOV)</i>			
Oscillation2.Rise	500.0	REAL	
rep/ms			
<i>Oscillation2.Rise - Planta_Simulacion/_10_Loops - *1(MOV)</i>			
Oscillation3			
Constant	No	Oscillation	Planta_Simulacion
External Access: Read/Write			
<i>Oscillation3 - Planta_Simulacion/_30_Caldera - *16(Oscillation)</i>			
Oscillation3.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation3.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Oscillation3.Rise	0.0	REAL	
rep/ms			
Oscillation4			
Constant	No	Oscillation	Planta_Simulacion
External Access: Read/Write			
<i>Oscillation4 - Planta_Simulacion/_30_Caldera - *18(Oscillation)</i>			
Oscillation4.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation4.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Oscillation4.Amplitude	1.0	REAL	
<i>Oscillation4.Amplitude - Planta_Simulacion/_30_Caldera - *0(MOV)</i>			
Oscillation4.Rise	200.0	REAL	
rep/ms			
<i>Oscillation4.Rise - Planta_Simulacion/_30_Caldera - *0(MOV)</i>			
Oscillation5			
Constant	No	Oscillation	Planta_Simulacion
External Access: Read/Write			
<i>Oscillation5 - Planta_Simulacion/_30_Caldera - *19(Oscillation)</i>			
Oscillation5.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
Oscillation5.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
Oscillation5.Amplitude	2.0	REAL	
<i>Oscillation5.Amplitude - Planta_Simulacion/_30_Caldera - *1(MOV)</i>			
Oscillation5.Rise	500.0	REAL	
rep/ms			
<i>Oscillation5.Rise - Planta_Simulacion/_30_Caldera - *1(MOV)</i>			
Oscillation6			
Constant	No	Oscillation	Planta_Simulacion
External Access: Read/Write			
<i>Oscillation6 - Planta_Simulacion/_30_Caldera - *23(Oscillation)</i>			
Oscillation6.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
Oscillation6.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
Oscillation6.Amplitude	2.0	REAL	
<i>Oscillation6.Amplitude - Planta_Simulacion/_30_Caldera - *2(MOV)</i>			
Oscillation6.Rise	500.0	REAL	
rep/ms			
<i>Oscillation6.Rise - Planta_Simulacion/_30_Caldera - *2(MOV)</i>			
Oscillation7			
Constant	No	Oscillation	Planta_Simulacion
External Access: Read/Write			

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Oscillation7 (Continued)			
<i>Oscillation7 - Planta_Simulacion/_30_Caldera - *24(Oscillation)</i>			
Oscillation7.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
Oscillation7.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
Oscillation7.Amplitude	2.0	REAL	
<i>Oscillation7.Amplitude - Planta_Simulacion/_30_Caldera - *3(MOV)</i>			
Oscillation7.Rise	500.0	REAL	
rep/ms			
<i>Oscillation7.Rise - Planta_Simulacion/_30_Caldera - *3(MOV)</i>			
Oscillation8		Oscillation	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Oscillation8 - Planta_Simulacion/_10_Loops - *5(Oscillation)</i>			
Oscillation8.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation8.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Oscillation8.Amplitude	2.0	REAL	
<i>Oscillation8.Amplitude - Planta_Simulacion/_10_Loops - *2(MOV)</i>			
Oscillation8.Rise	500.0	REAL	
rep/ms			
<i>Oscillation8.Rise - Planta_Simulacion/_10_Loops - *2(MOV)</i>			
Oscillation9		Oscillation	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Oscillation9 - Planta_Simulacion/_70_Circuito_Vapor - *5(Oscillation)</i>			
Oscillation9.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation9.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Oscillation9.Amplitude	1.0	REAL	
<i>Oscillation9.Amplitude - Planta_Simulacion/_70_Circuito_Vapor - *0(MOV)</i>			
Oscillation9.Rise	200.0	REAL	
rep/ms			
<i>Oscillation9.Rise - Planta_Simulacion/_70_Circuito_Vapor - *0(MOV)</i>			
Oscillation10		Oscillation	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Oscillation10 - Planta_Simulacion/_70_Circuito_Vapor - *7(Oscillation)</i>			
Oscillation10.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation10.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Oscillation10.Amplitude	1.0	REAL	
<i>Oscillation10.Amplitude - Planta_Simulacion/_70_Circuito_Vapor - *1(MOV)</i>			
Oscillation10.Rise	200.0	REAL	
rep/ms			
<i>Oscillation10.Rise - Planta_Simulacion/_70_Circuito_Vapor - *1(MOV)</i>			
Oscillation11		Oscillation	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Oscillation11 - Planta_Simulacion/_70_Circuito_Vapor - *9(Oscillation)</i>			
Oscillation11.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation11.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Oscillation11.Rise	0.0	REAL	
rep/ms			
Oscillation12		Oscillation	Planta_Simulacion
Constant	No		
External Access:	Read/Write		

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Oscillation12 (Continued)			
<i>Oscillation12 - Planta_Simulacion/_70_Circuito_Vapor - *10(Oscillation)</i>			
Oscillation12.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation12.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Oscillation12.Amplitude	2.0	REAL	
<i>Oscillation12.Amplitude - Planta_Simulacion/_30_Caldera - *4(MOV)</i>			
Oscillation12.Rise	500.0	REAL	
rep/ms			
<i>Oscillation12.Rise - Planta_Simulacion/_30_Caldera - *4(MOV)</i>			
Oscillation13		Oscillation	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Oscillation13 - Planta_Simulacion/_30_Caldera - *20(Oscillation)</i>			
Oscillation13.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation13.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Oscillation13.Rise	0.0	REAL	
rep/ms			
Oscillation14		Oscillation	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Oscillation14 - Planta_Simulacion/_30_Caldera - *23(Oscillation)</i>			
Oscillation14.EnableIn	0	BOOL	
Enable Input - System Defined Parameter			
Oscillation14.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
Oscillation14.Amplitude	2.0	REAL	
<i>Oscillation14.Amplitude - Planta_Simulacion/_30_Caldera - *5(MOV)</i>			
Oscillation14.Rise	500.0	REAL	
rep/ms			
<i>Oscillation14.Rise - Planta_Simulacion/_30_Caldera - *5(MOV)</i>			
Oscillation16		Oscillation	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
Oscillation16.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation16.EnableOut	0	BOOL	
Enable Output - System Defined Parameter			
Oscillation16.Amplitude	1.0	REAL	
<i>Oscillation16.Amplitude - Planta_Simulacion/_70_Circuito_Vapor - *2(MOV)</i>			
Oscillation16.Rise	200.0	REAL	
rep/ms			
<i>Oscillation16.Rise - Planta_Simulacion/_70_Circuito_Vapor - *2(MOV)</i>			
Oscillation18		Oscillation	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Oscillation18 - Planta_Simulacion/_80_Combustible_AUX - *1(Oscillation)</i>			
Oscillation18.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation18.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Oscillation18.Amplitude	2.0	REAL	
<i>Oscillation18.Amplitude - Planta_Simulacion/_80_Combustible_AUX - *0(MOV)</i>			
Oscillation18.Rise	500.0	REAL	
rep/ms			
<i>Oscillation18.Rise - Planta_Simulacion/_80_Combustible_AUX - *0(MOV)</i>			
Oscillation20		Oscillation	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Oscillation20 - Planta_Simulacion/_90_Turbina - *1(Oscillation)</i>			

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TFG - Program Tag Listing
TFG (Controller)

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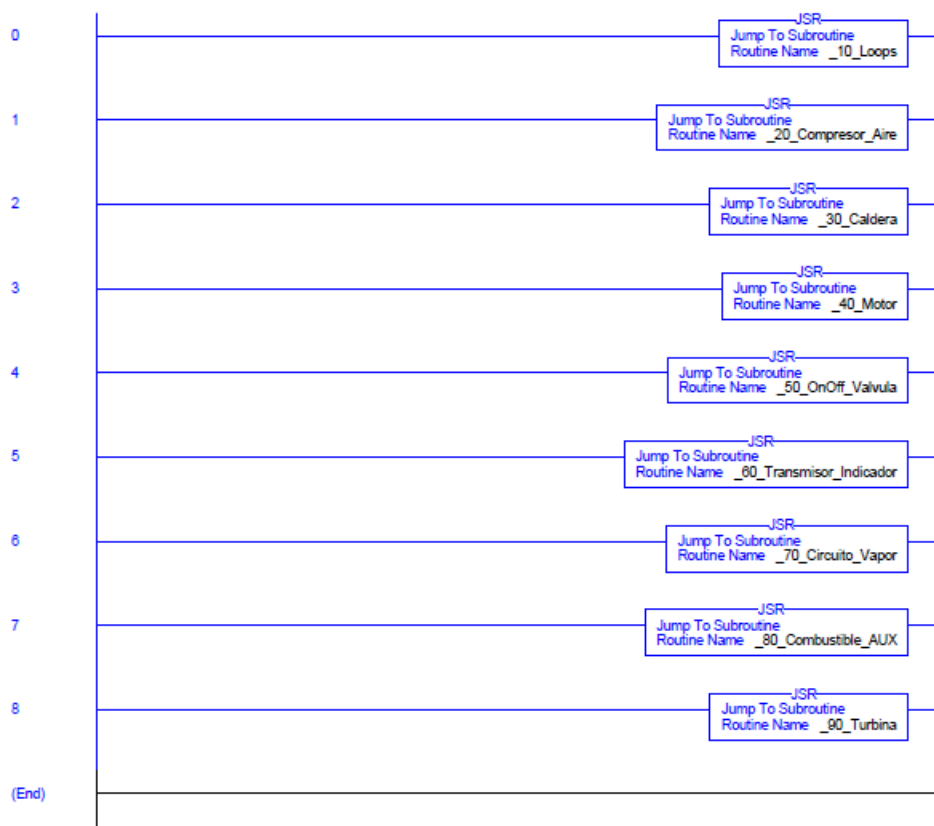
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Oscillation20.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Oscillation20.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Oscillation20.Rise	0.0	REAL	
rep/ms			
T_Deposito		TIMER	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>T_Deposito - Planta_Simulacion/_70_Circuito_Vapor - *3(TON)</i>			
T_Deposito.DN	0	BOOL	
<i>T_Deposito.DN - Planta_Simulacion/_10_Loops - 5(XIC)</i>			
<i>T_Deposito.DN - Planta_Simulacion/_70_Circuito_Vapor - 10(XIC), 3(XIO), 5(XIC)</i>			
T_Llenado		TIMER	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>T_Llenado - Planta_Simulacion/_30_Caldera - *3(TON)</i>			
T_Llenado.DN	0	BOOL	
<i>T_Llenado.DN - Planta_Simulacion/_30_Caldera - 10(XIC), 11(XIC), 8(XIO), 9(XIC)</i>			
T_Vaciado		TIMER	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>T_Vaciado - Planta_Simulacion/_30_Caldera - *22(TON)</i>			
T_Vaciado.DN	0	BOOL	
<i>T_Vaciado.DN - Planta_Simulacion/_30_Caldera - 22(XIO), 23(XIC), 24(XIC)</i>			
Temp_Bio_Air_No_Range	24.610065	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Temp_Bio_Air_No_Range - Planta_Simulacion/_30_Caldera - *20(ADD), 20(ADD)</i>			
Temp_Bio_Air_Range	0.0	REAL	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Temp_Bio_Air_Range - Planta_Simulacion/_30_Caldera - *19(ADD), 19(ADD)</i>			
Turbina_01		Turbina	Planta_Simulacion
Constant	No		
External Access:	Read/Write		
<i>Turbina_01 - Planta_Simulacion/_90_Turbina - *0(Turbina)</i>			
Turbina_01.EnableIn	1	BOOL	
Enable Input - System Defined Parameter			
Turbina_01.EnableOut	1	BOOL	
Enable Output - System Defined Parameter			
Turbina_01.DO05	0	BOOL	
Start			
Turbina_01.DO06	0	BOOL	
Reset			
Turbina_01.DO07	0	BOOL	
YCool			
Turbina_01.DO08	0	BOOL	
YOil			

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MAIN

_00_MainRoutine - Ladder Diagram
TFG:SimulacionPlanta_Simulacion
Total number of rungs in routine: 9

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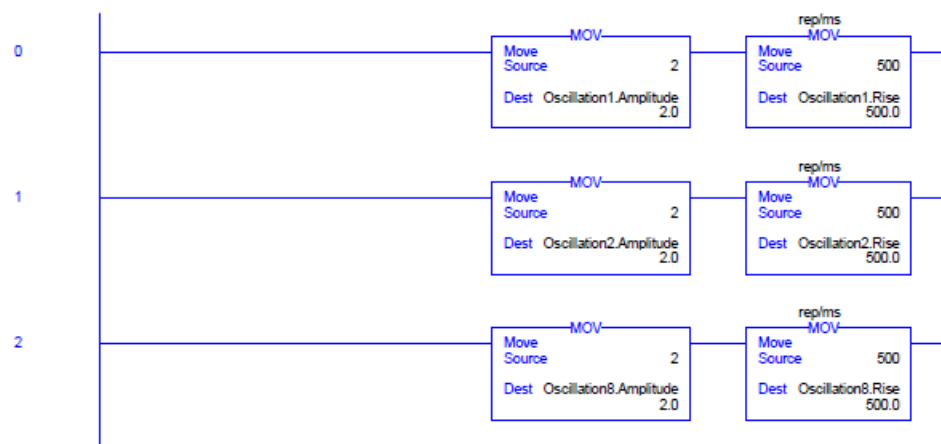


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LOOPS

_10_Loops - Ladder Diagram
TFG: Simulacion: Planta_Simulacion
Total number of rungs in routine: 6

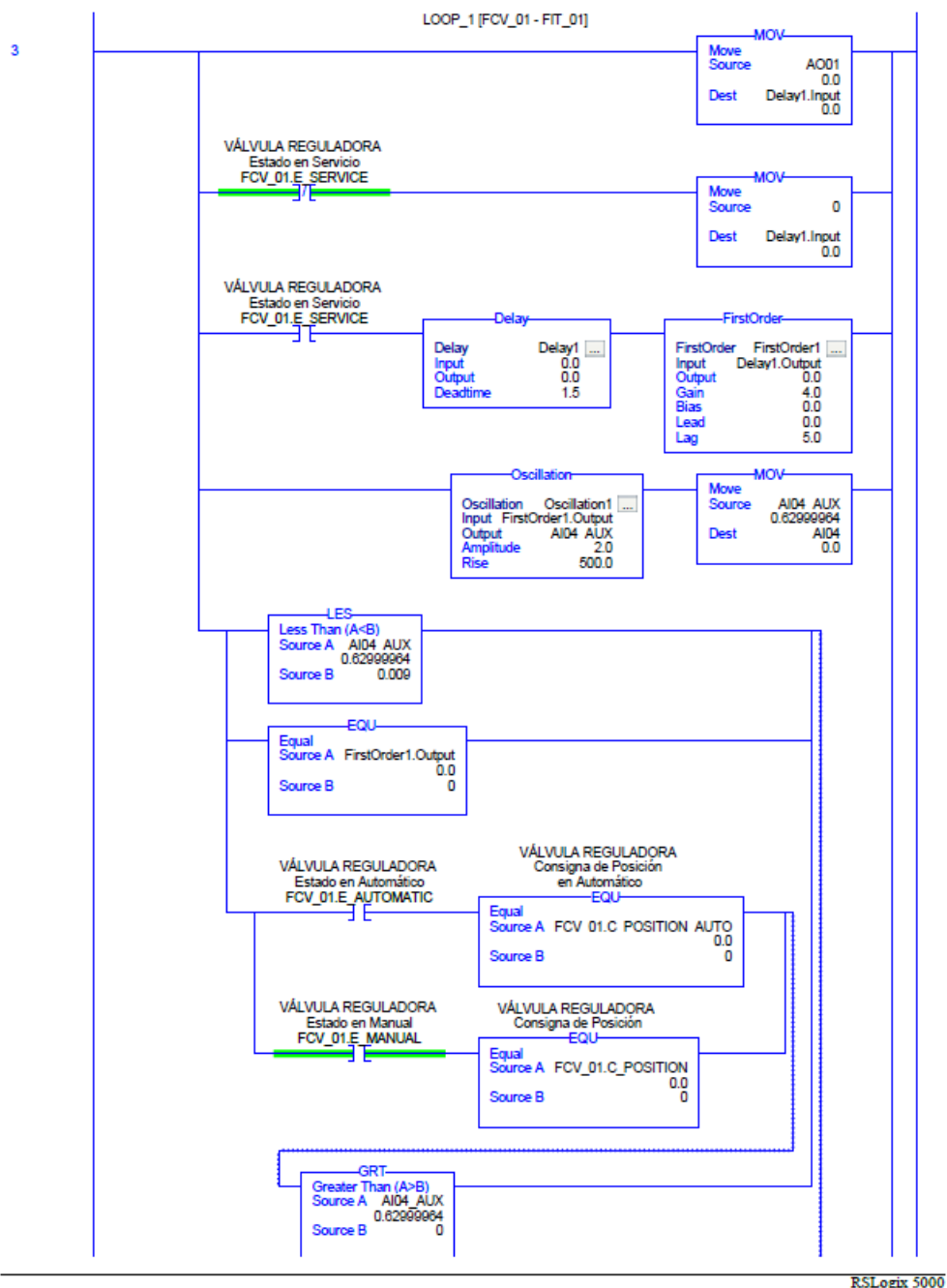
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_10_Loops - Ladder Diagram
TFG: Simulacion Planta Simulacion
Total number of rungs in routine: 6

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_10_Loops - Ladder Diagram
TFG:Simulacion:Planta_Simulacion
Total number of rungs in routine: 6

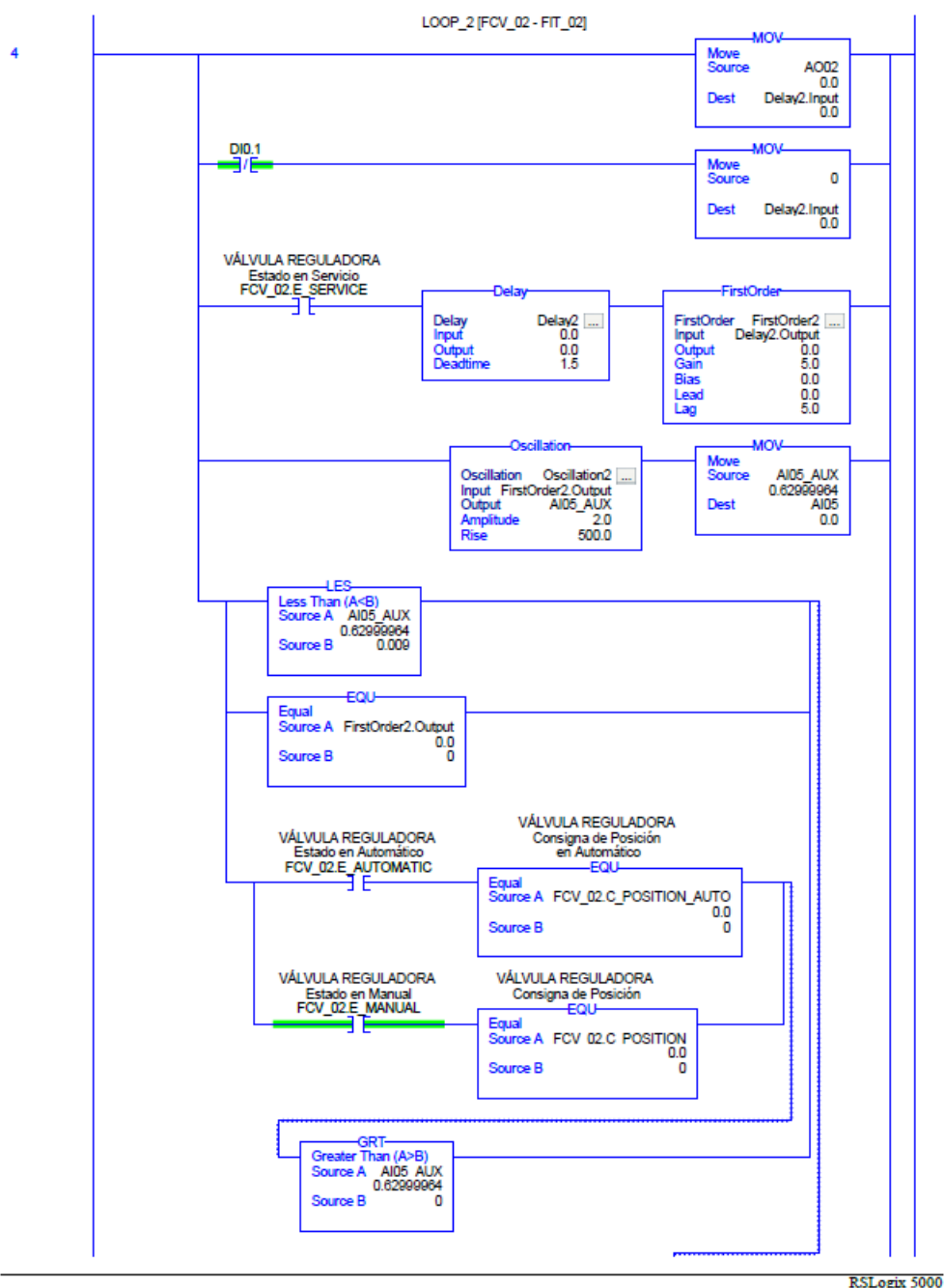
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_10_Loops - Ladder Diagram
TFG: Simulacion Planta_Simulacion
Total number of rungs in routine: 6

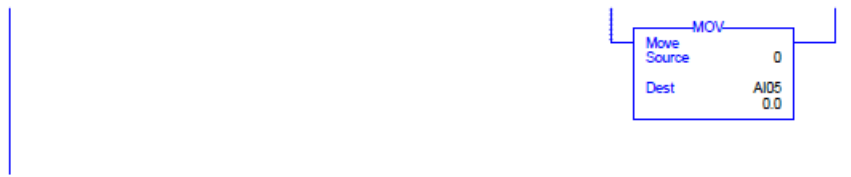
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_10_Loops - Ladder Diagram
 TFG:Simulacion:Planta_Simulacion
 Total number of rungs in routine: 6

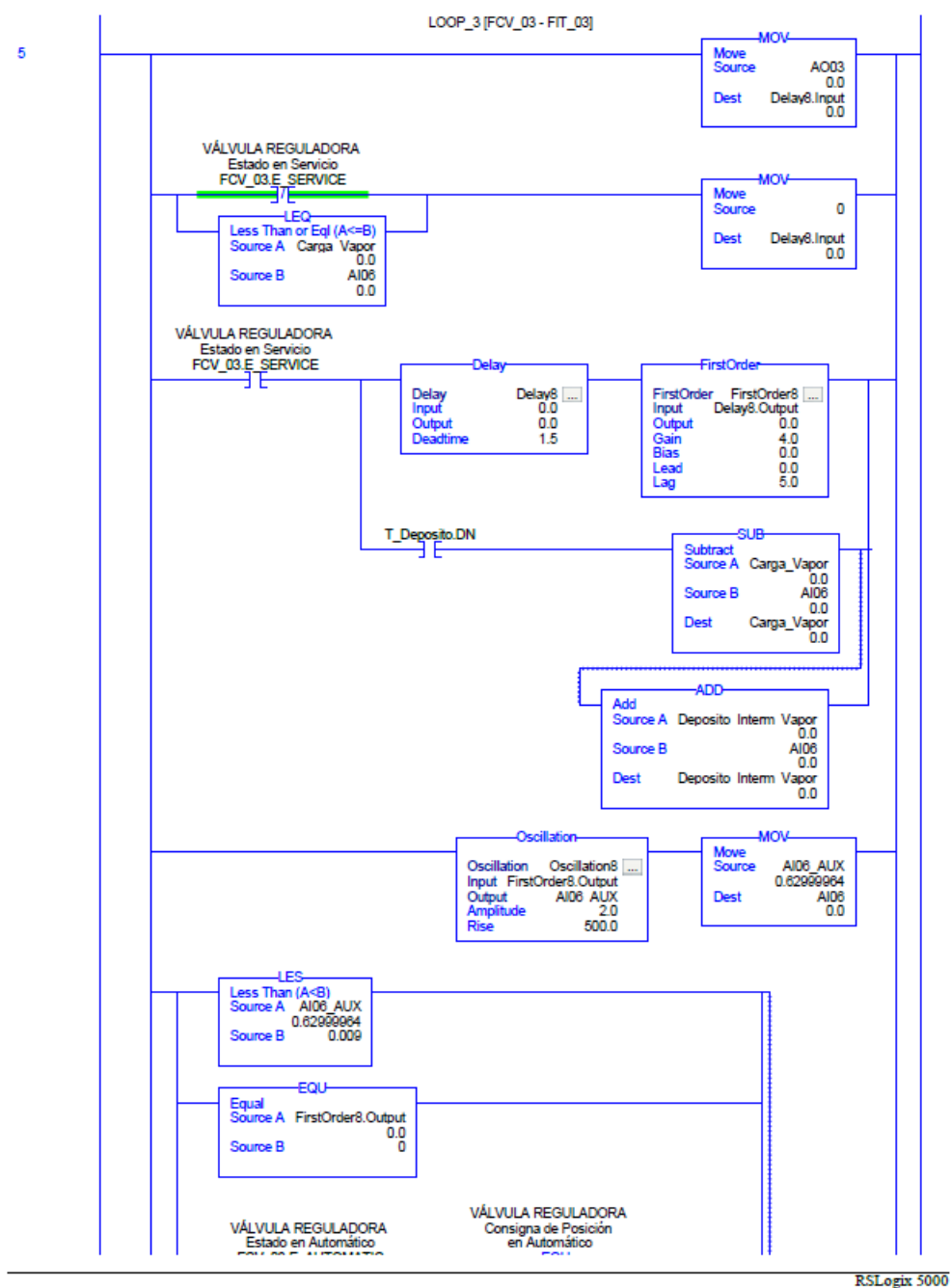
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_10_Loops - Ladder Diagram
TFG: Simulacion Planta Simulacion
Total number of rungs in routine: 6

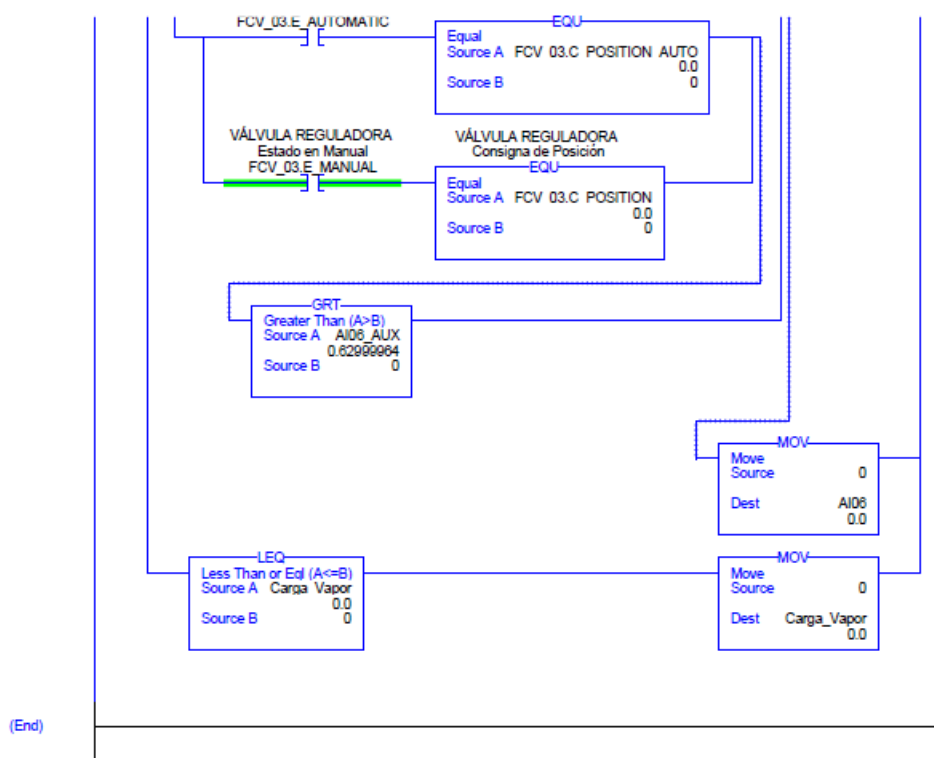
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_10_Loops - Ladder Diagram
 TFG: Simulacion: Planta_Simulacion
 Total number of rungs in routine: 6

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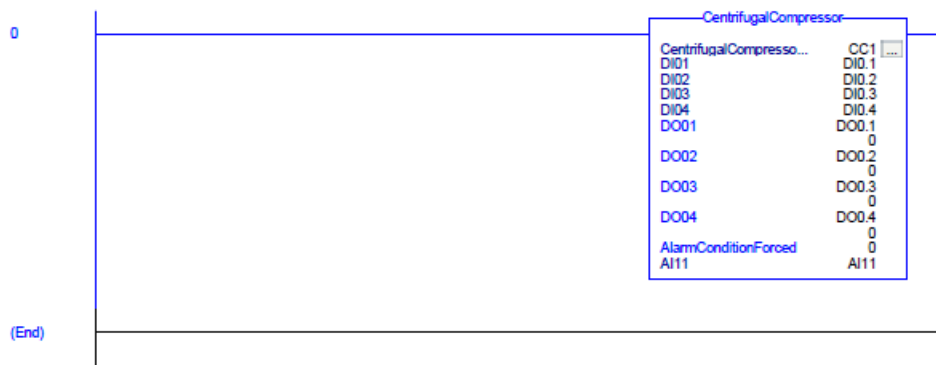


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COMPRESOR SOPLADOR

_20_Compresor_Aire - Ladder Diagram
TFG: Simulacion Planta Simulacion
Total number of rungs in routine: 1

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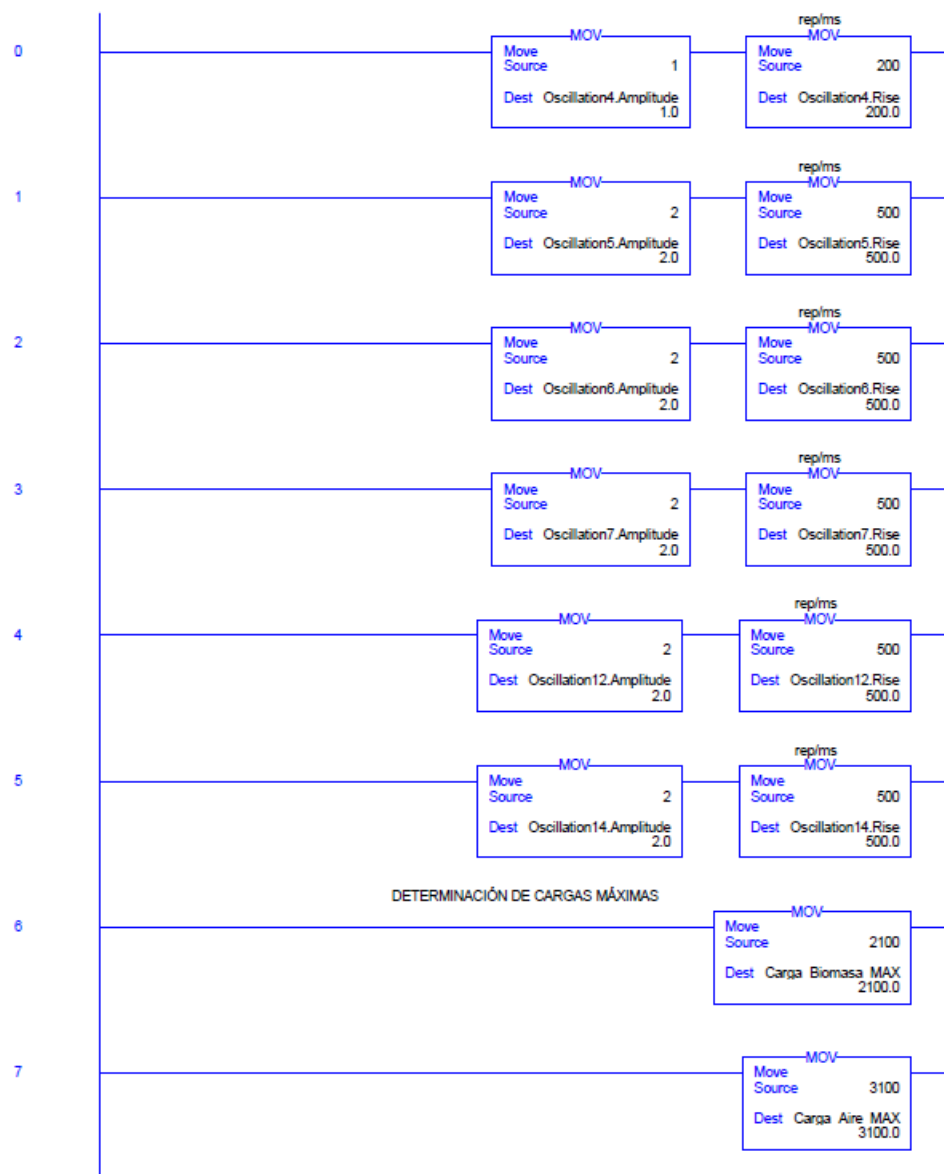
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CALDERA

_30_Caldera - Ladder Diagram
TFG: Simulacion: Planta_Simulacion
Total number of rungs in routine: 25

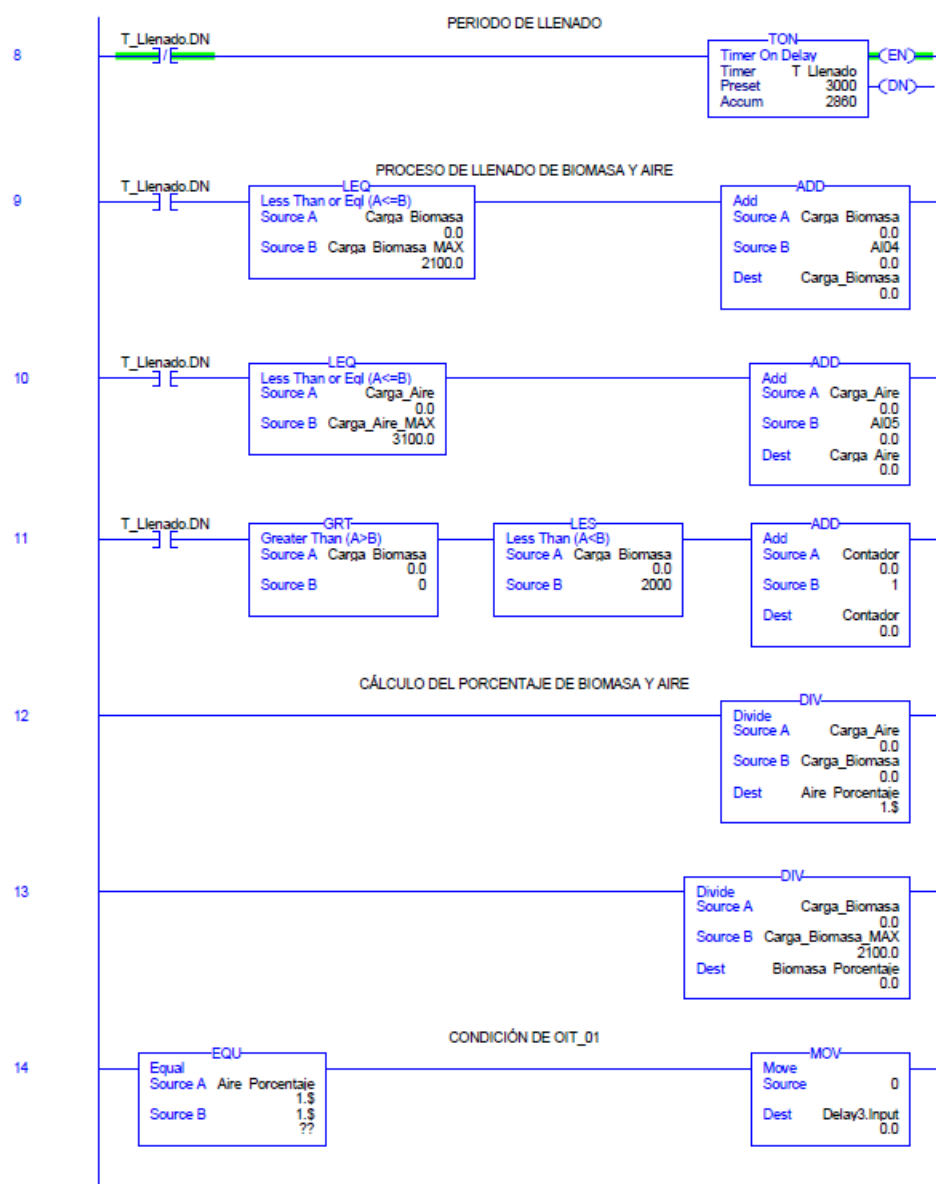
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_30_Caldera - Ladder Diagram
TFG: Simulación Planta Simulación
Total number of rungs in routine: 25

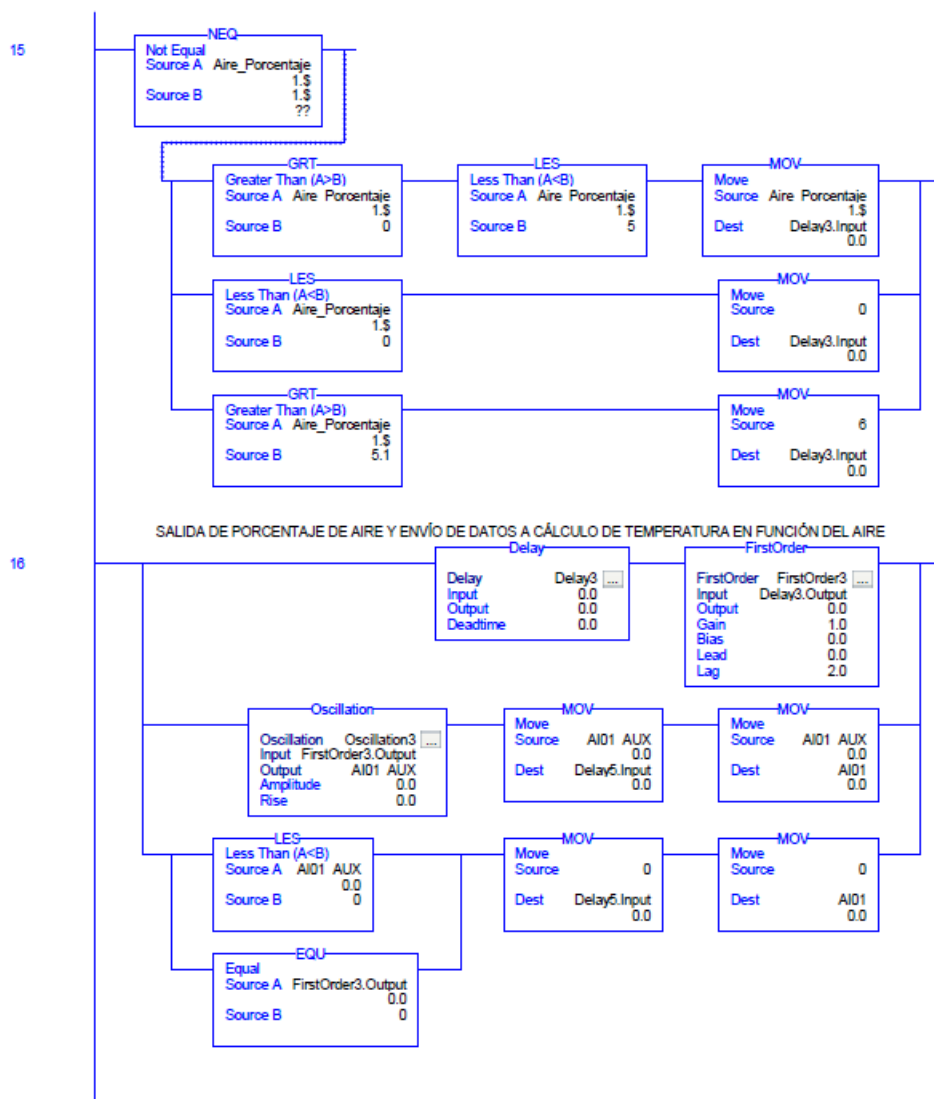
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_30_Caldera - Ladder Diagram
 TFG: Simulacion: Planta_Simulacion
 Total number of rungs in routine: 25

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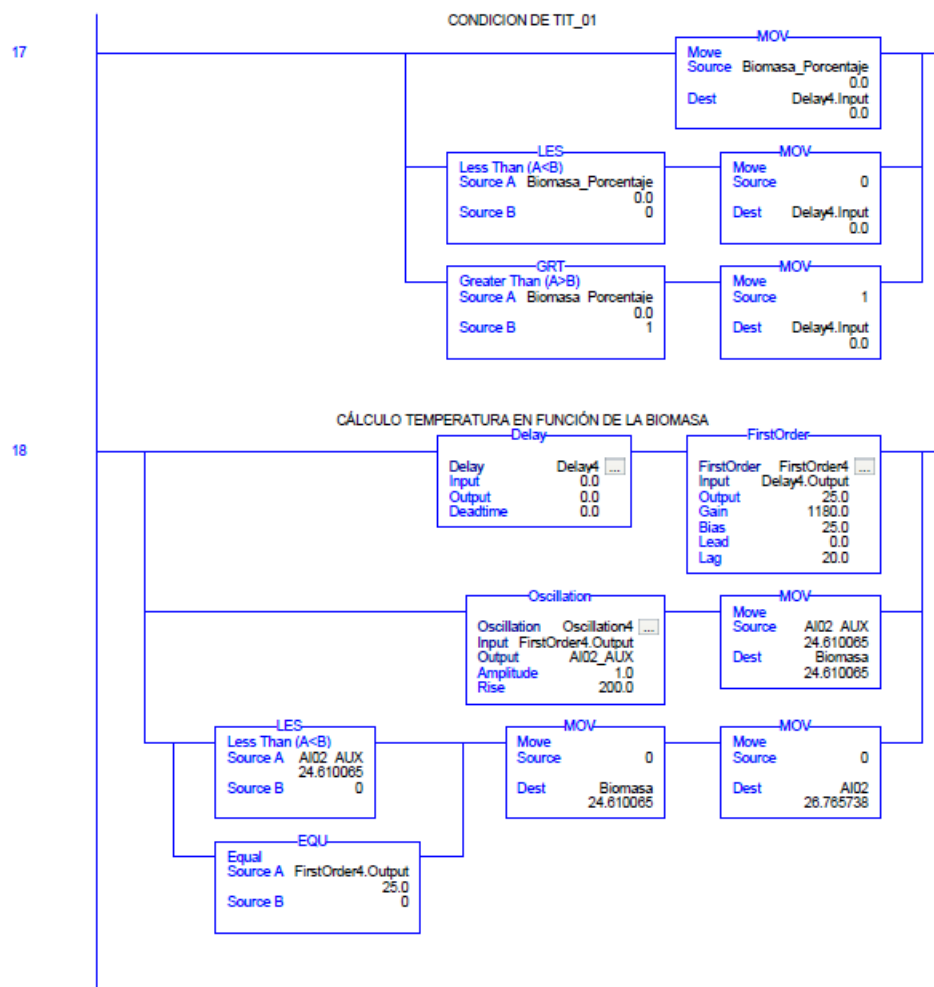


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_30_Caldera - Ladder Diagram
 TFG: Simulacion Planta_Simulacion
 Total number of rungs in routine: 25

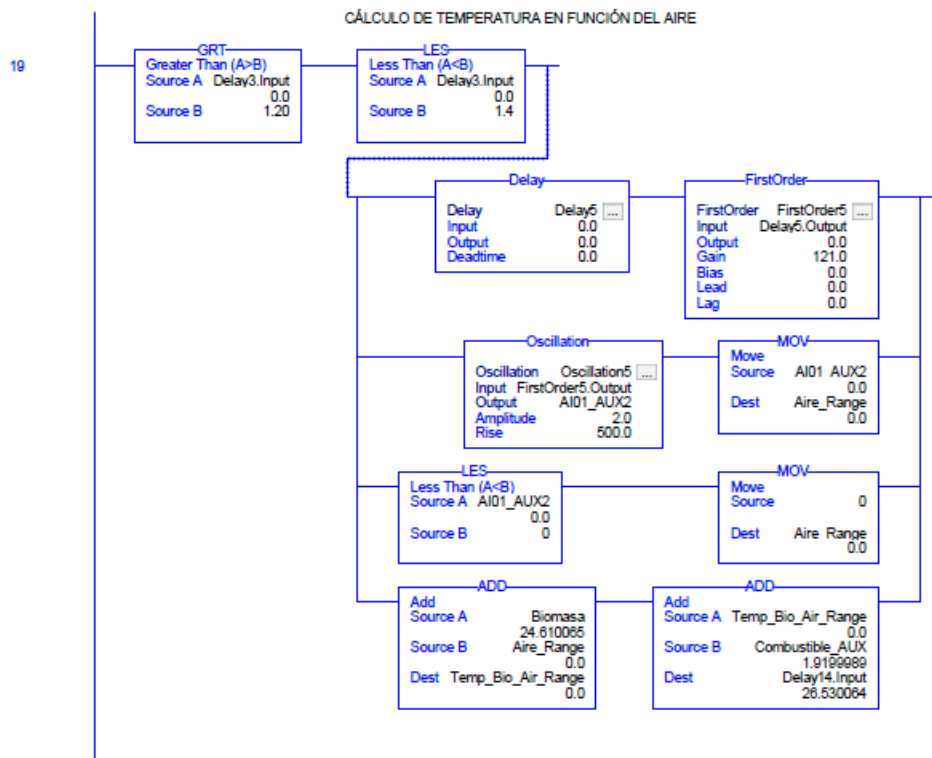
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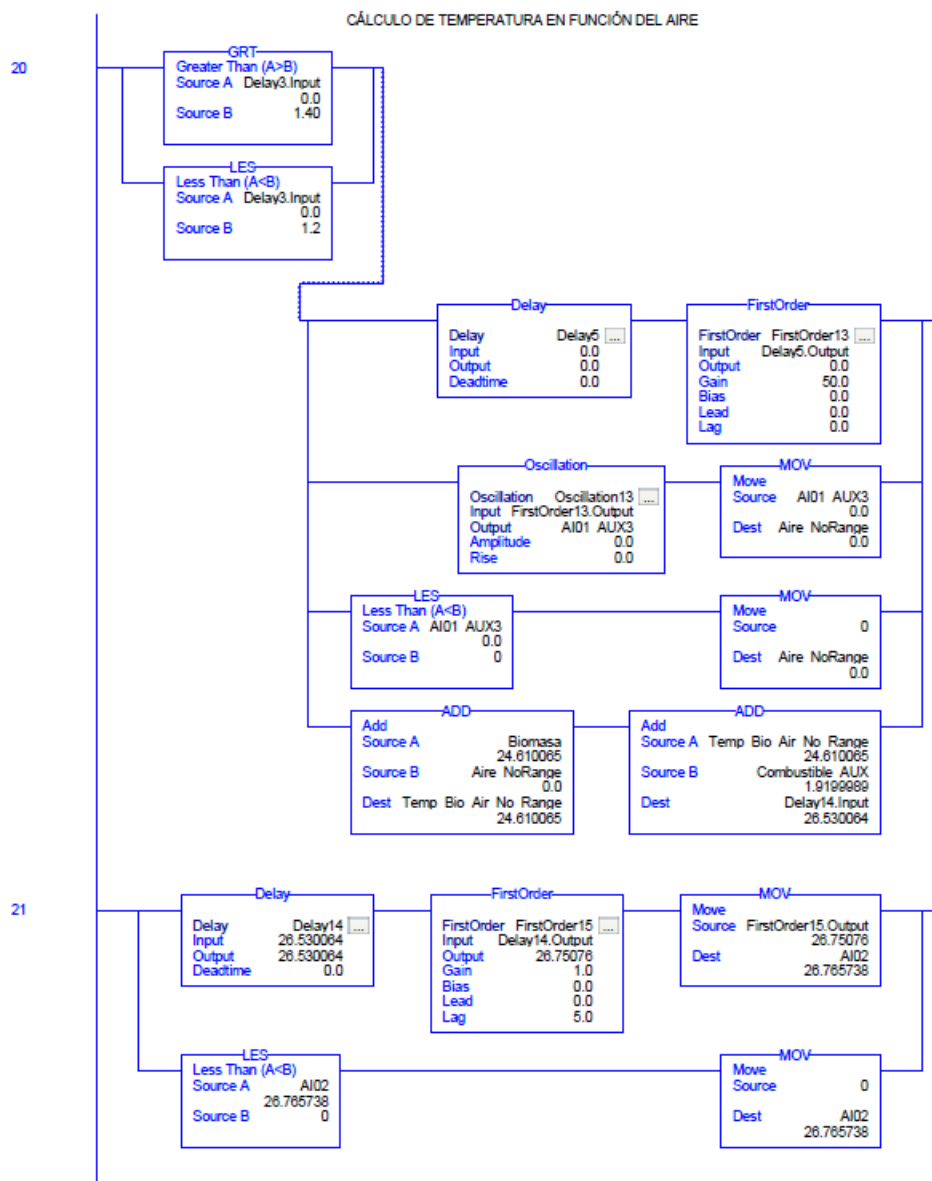
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_30_Caldera - Ladder Diagram
 TFG: Simulacion: Planta_Simulation
 Total number of rungs in routine: 25

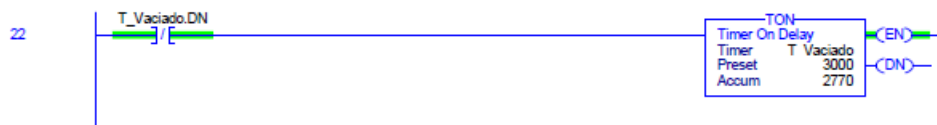
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_30_Caldera - Ladder Diagram
TFG:Simulacion:Planta_Simulacion
Total number of rungs in routine: 25

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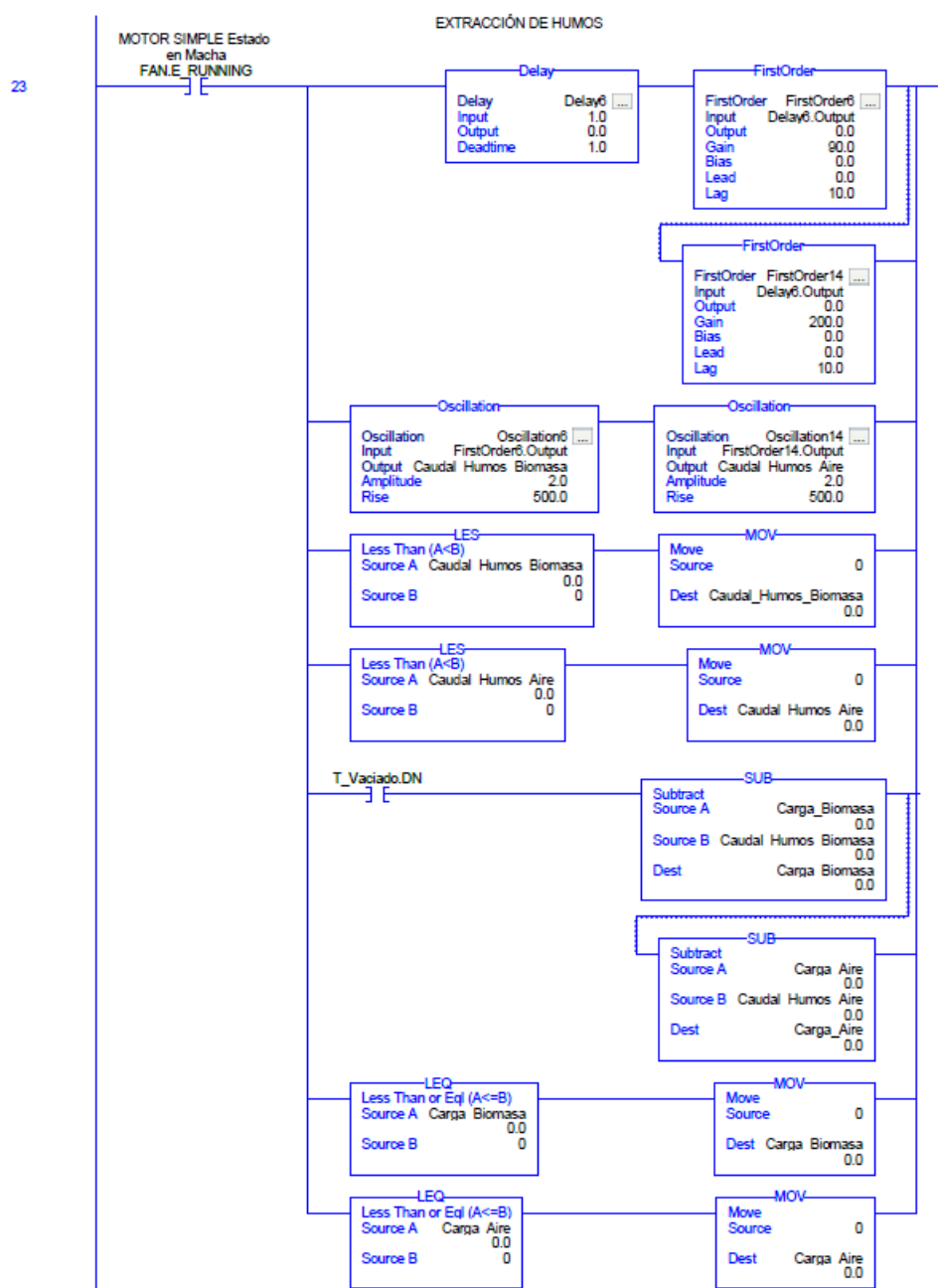


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_30_Caldera - Ladder Diagram
 TFG: Simulacion: Planta_Simulacion
 Total number of rungs in routine: 25

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

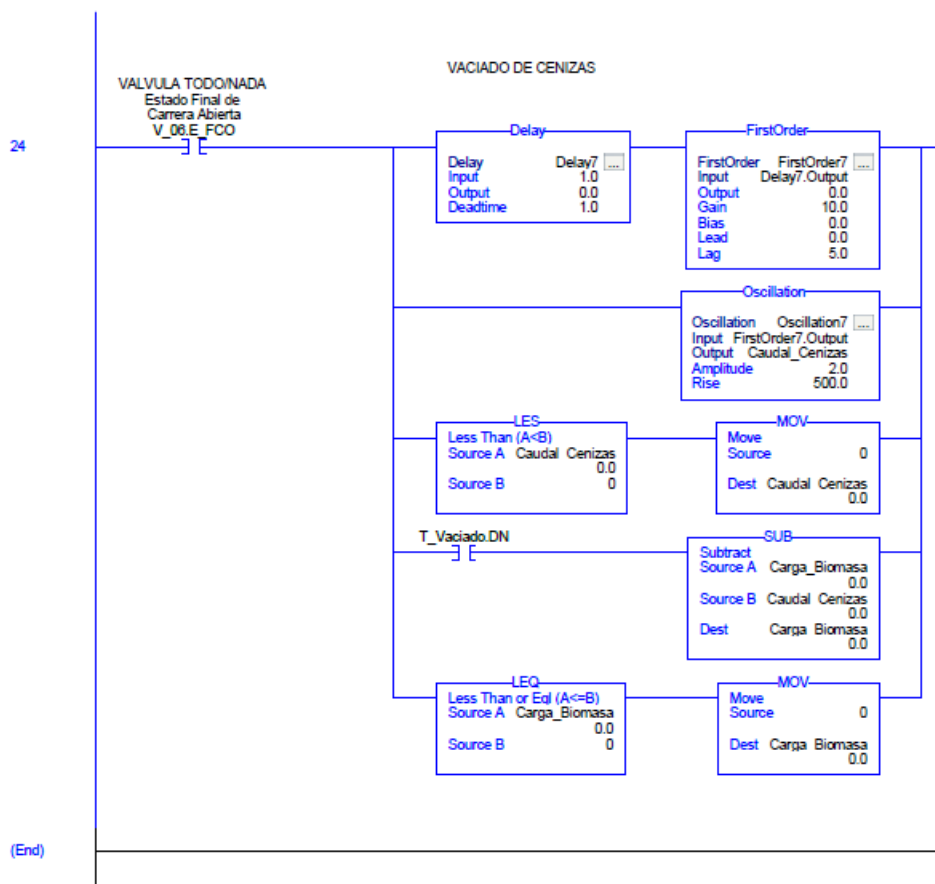


RSLogix 5000



_30_Caldera - Ladder Diagram
 TFG: Simulacion: Planta_Simulacion
 Total number of rungs in routine: 25

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 C:\Documents and Settings\Administrador\Escritorio\TFG\TFG-ACD

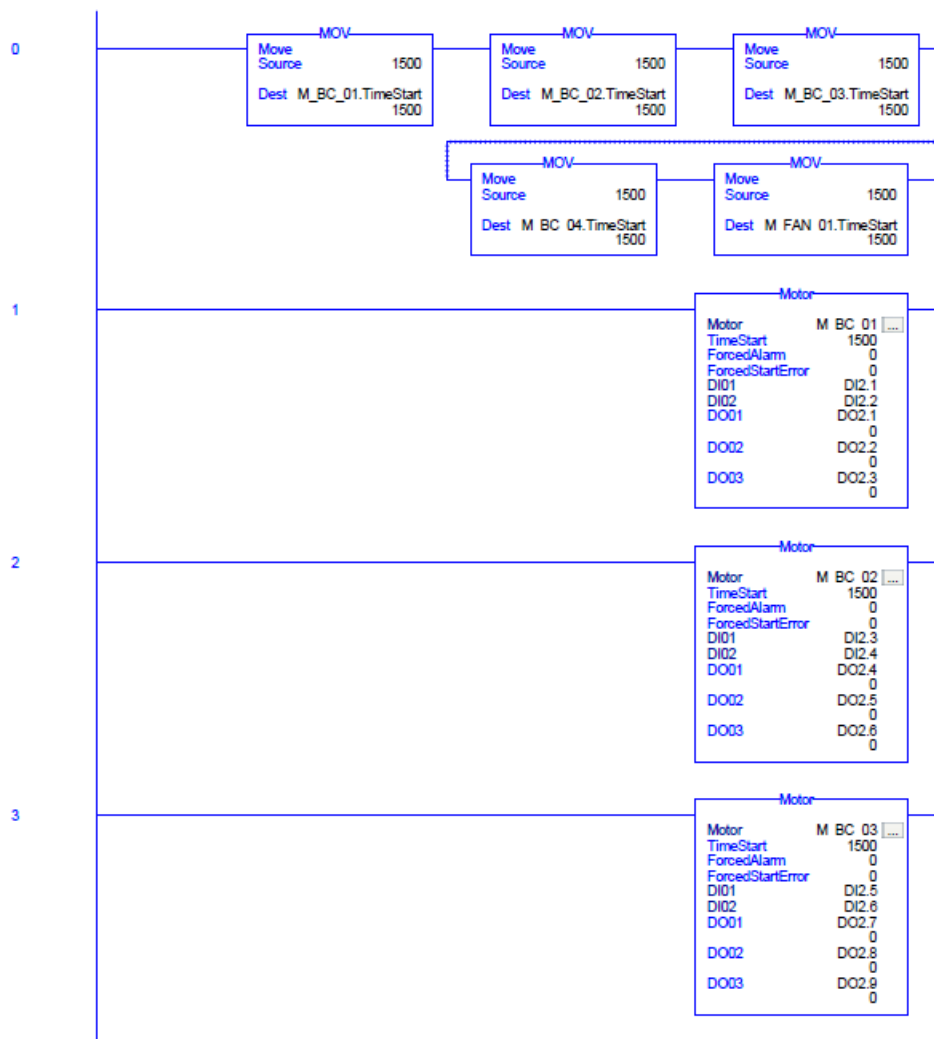


RSLogix 5000

MOTOR

_40_Motor - Ladder Diagram
TFG: Simulaci3n Planta Simulaci3n
Total number of rungs in routine: 6

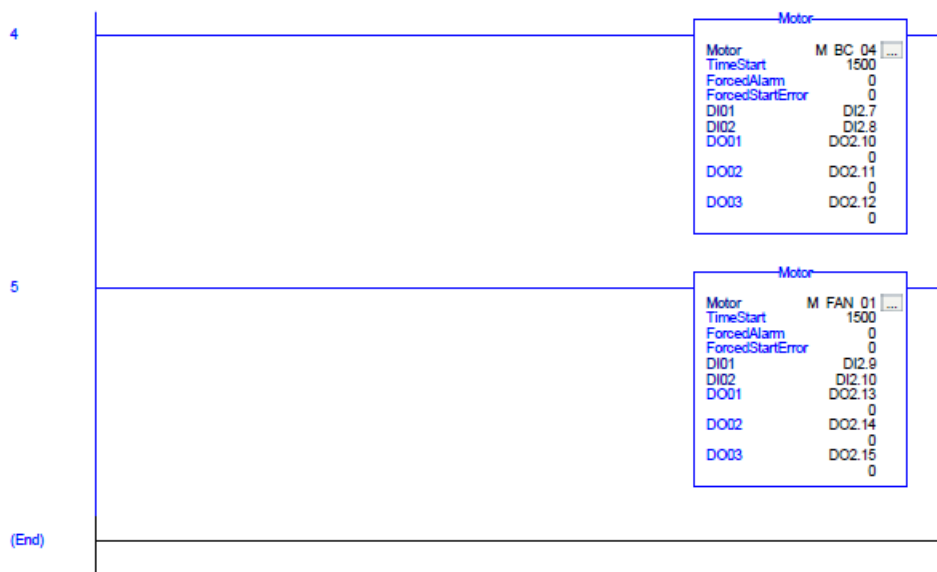
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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



RSLogix 5000

_40_Motor - Ladder Diagram
 TFG: Simulacion: Planta_Simulacion
 Total number of rungs in routine: 6

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RSLogix 5000

VÁLVULA TODO/NADA

_50_OnOff_Valvula - Ladder Diagram

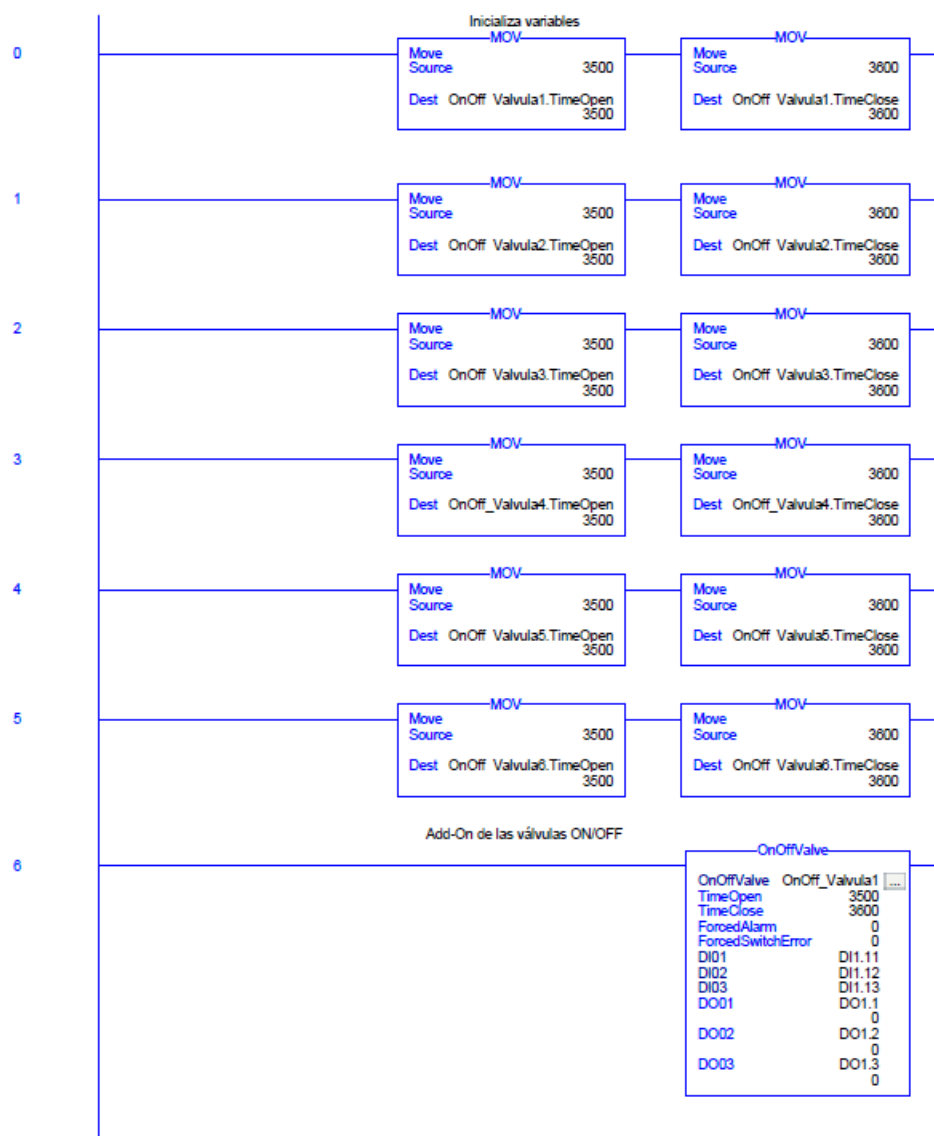
TFG:Simulacion_Planta_Simulacion

Total number of rungs in routine: 12

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



RSLogix 5000

_50_OnOff_Valvula - Ladder Diagram

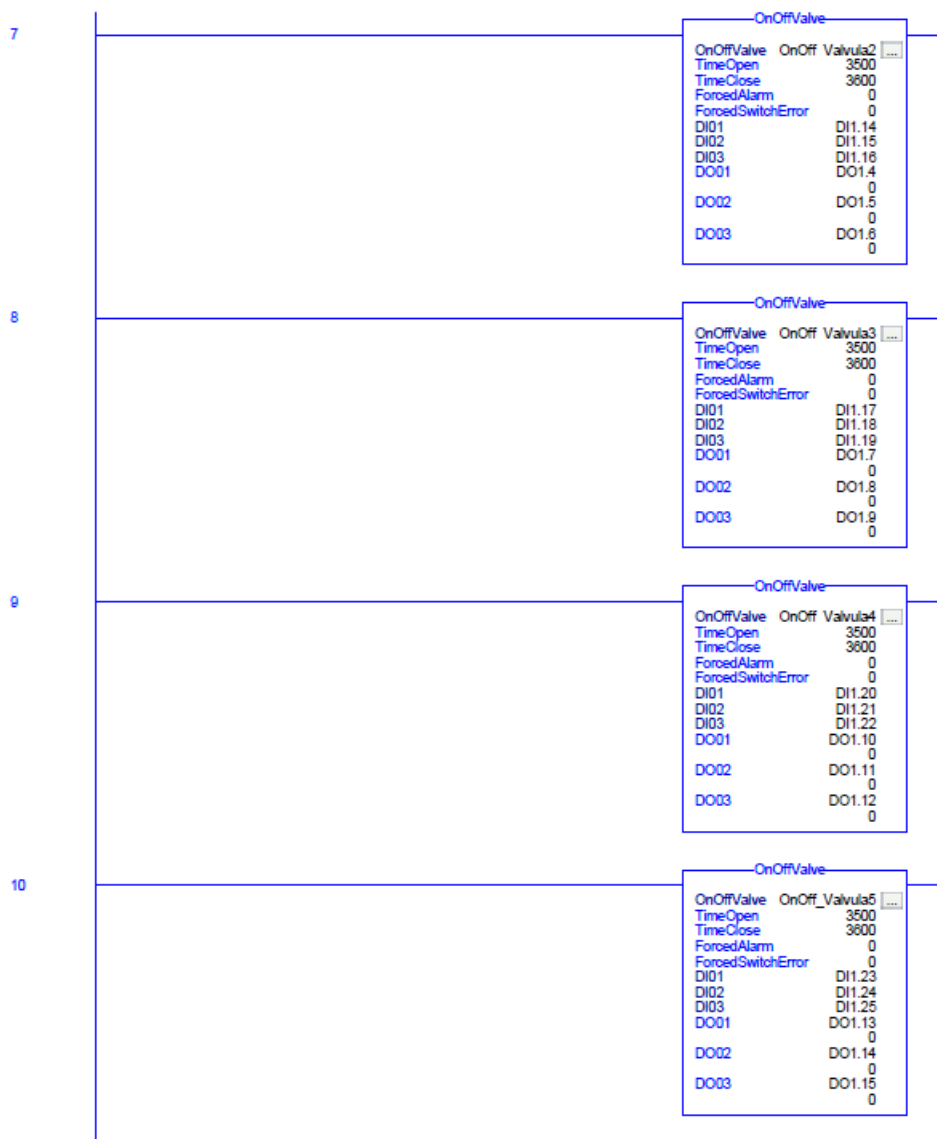
Page 2

TFG: Simulacion: Planta_Simulacion

25/09/2018 2:15:44

Total number of rungs in routine: 12

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BARCELONATECH

Escola d'Enginyeria de Barcelona Est

_50_OnOff_Valvula - Ladder Diagram

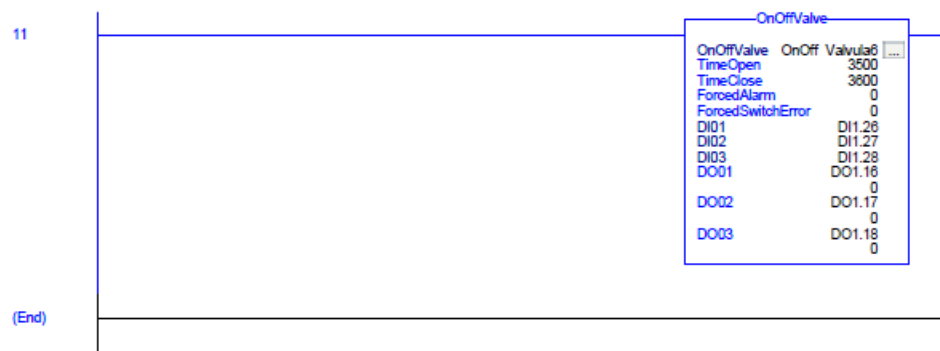
TFG:Simulacion:Planta_Simulacion

Total number of rungs in routine: 12

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



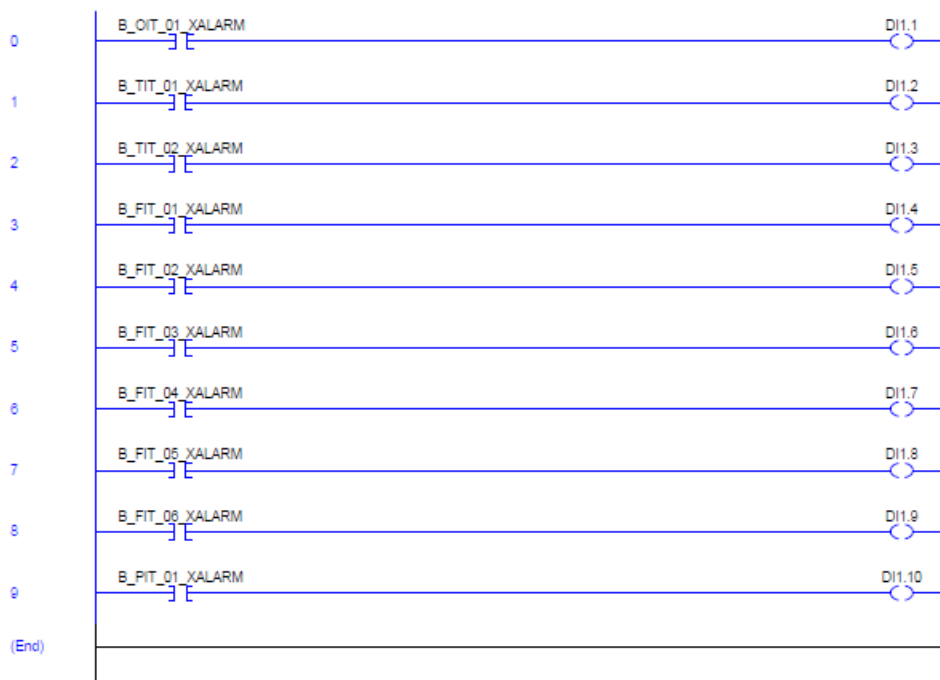
RSLogix 5000



INDICADOR TRANSMISOR

_60_Transmisor_Indicador - Ladder Diagram
TFG: Simulacion Planta Simulacion
Total number of rungs in routine: 10

Page 1
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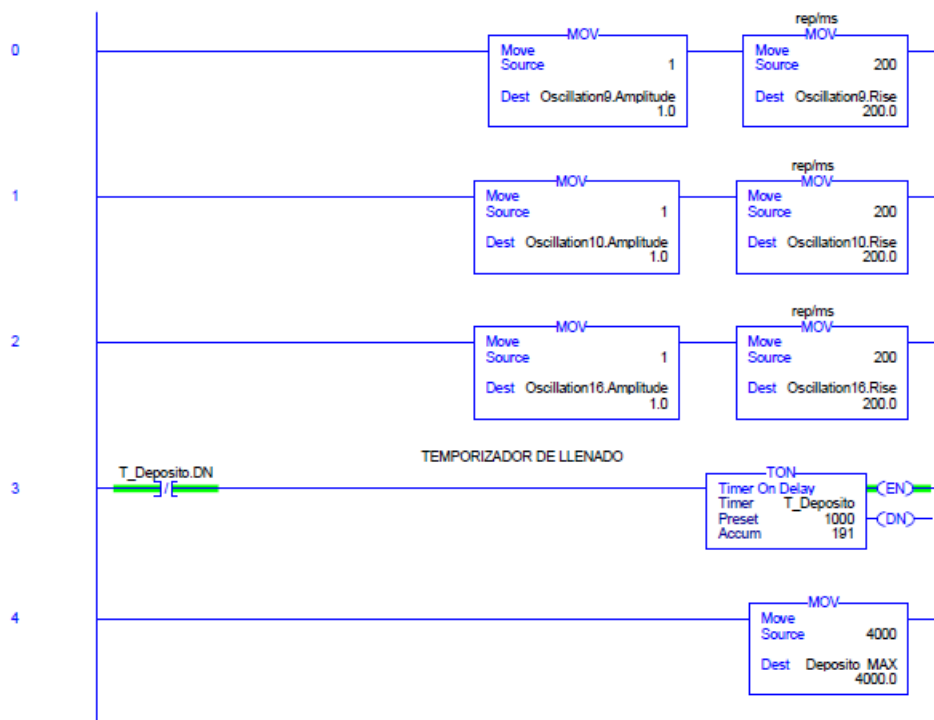


RSLogix 5000

CIRCUITO VAPOR

_70_Circuito_Vapor - Ladder Diagram
TFG:Simulacion:Planta_Simulacion
Total number of rungs in routine: 11

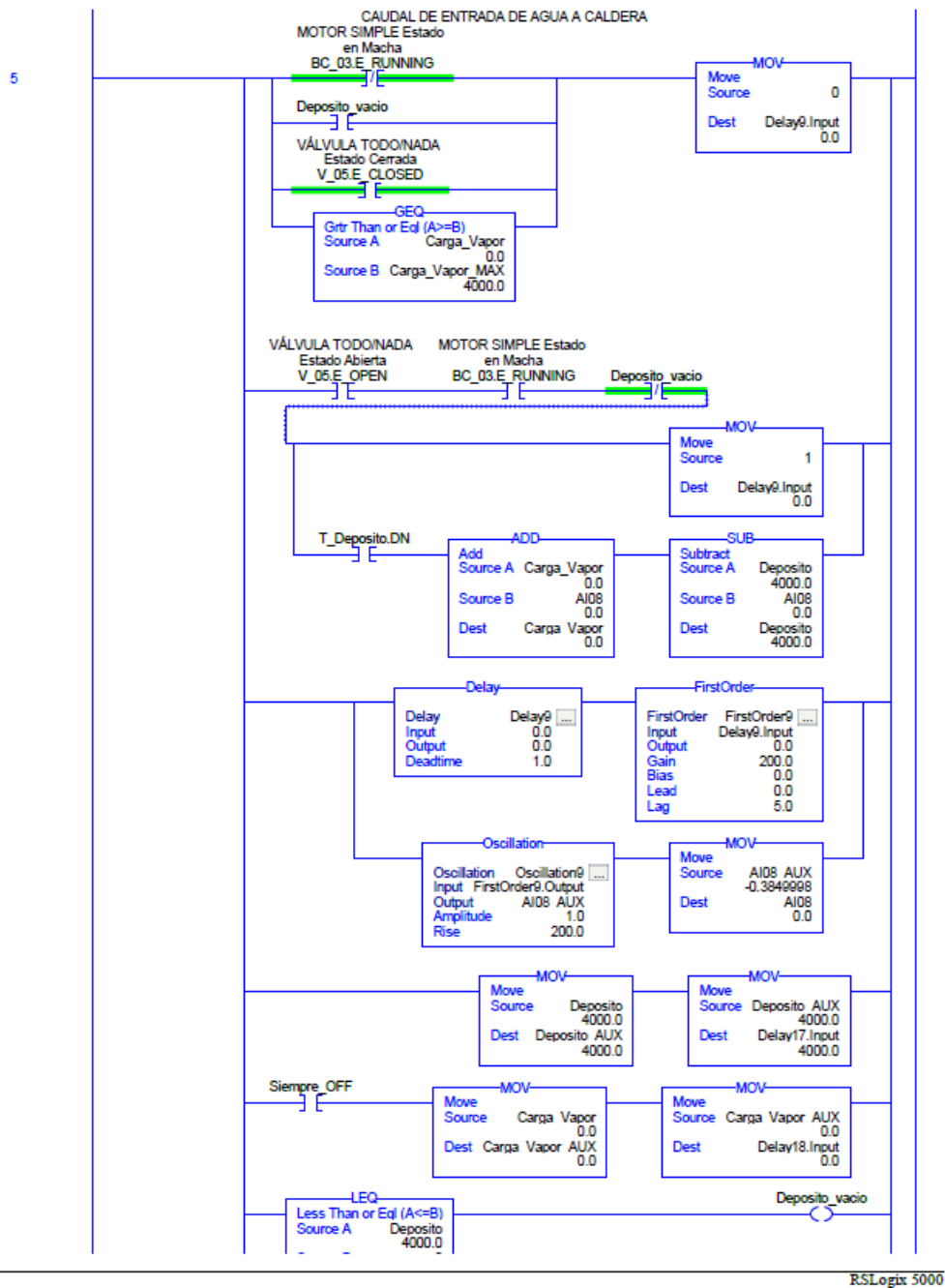
Page 1
25/09/2018 2:16:19
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



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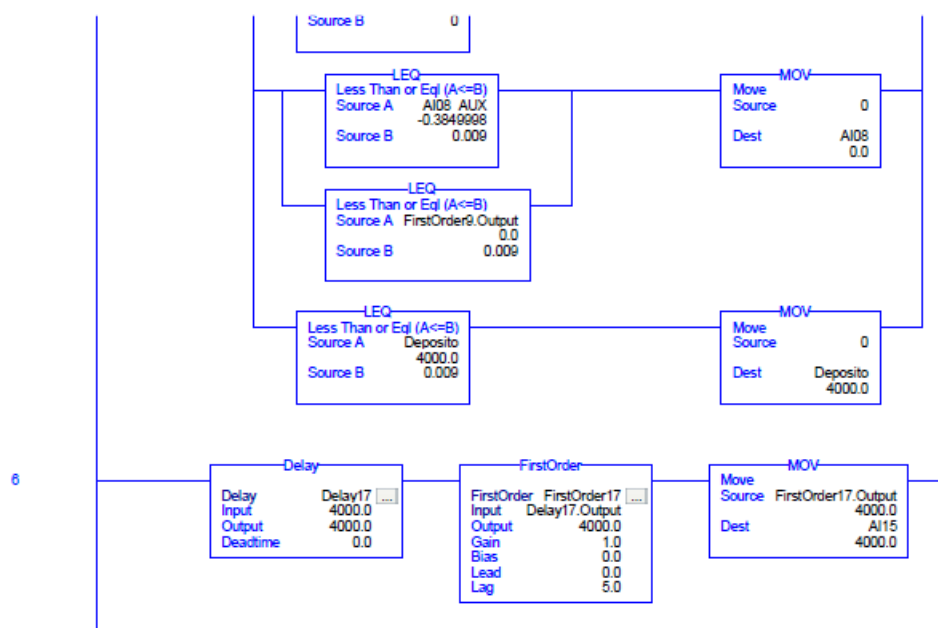
_70_Circuito_Vapor - Ladder Diagram
TFG: Simulacion: Planta_Simulacion
Total number of rungs in routine: 11

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25/09/2018 2:16:24
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



_70_Circuito_Vapor - Ladder Diagram
 TFG:Simulacion:Planta_Simulation
 Total number of rungs in routine: 11

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 25/09/2018 2:16:24
 C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

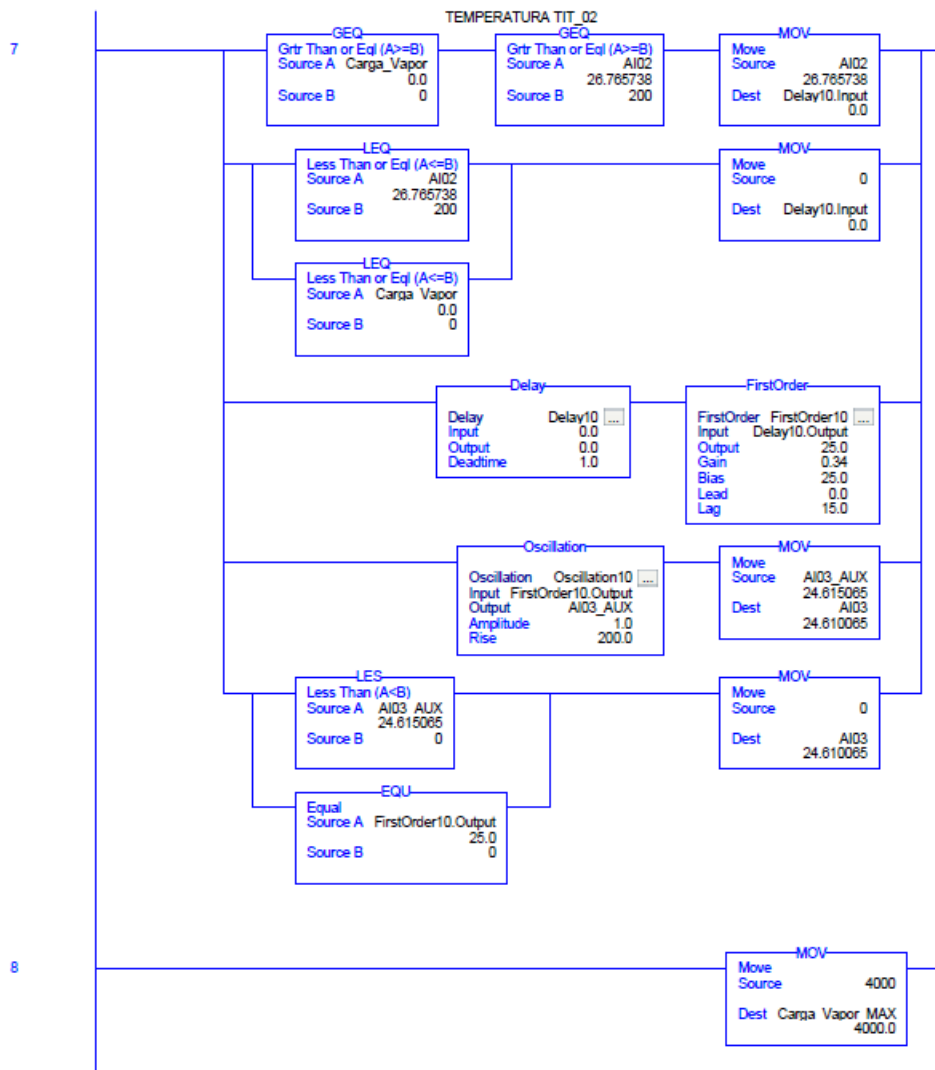


RSLogix 5000



_70_Circuito_Vapor - Ladder Diagram
TFG: Simulacion: Planta_Simulacion
Total number of rungs in routine: 11

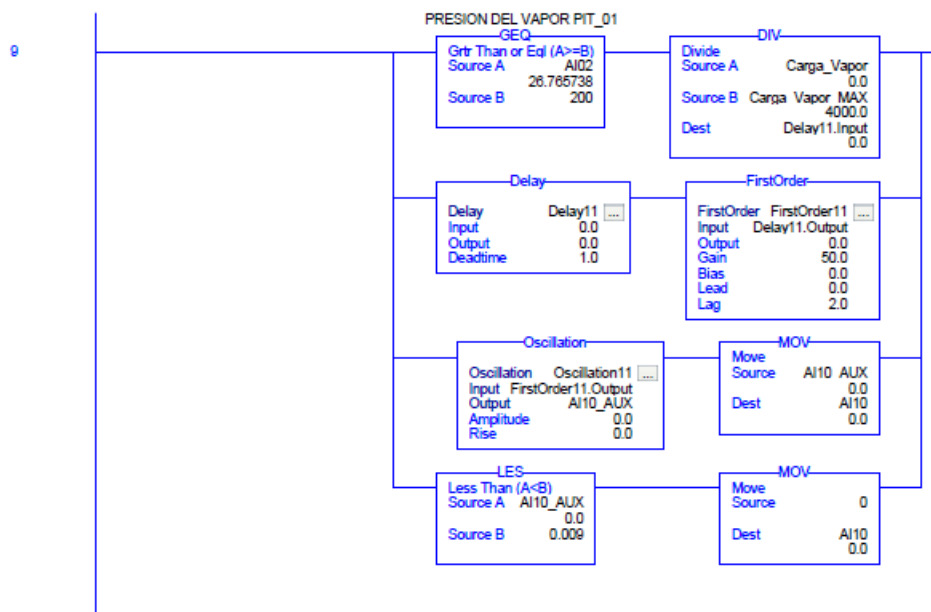
Page 4
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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



RSLogix 5000

_70_Circuito_Vapor - Ladder Diagram
 TFG: Simulacion Planta_Simulacion
 Total number of rungs in routine: 11

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 25/09/2018 2:16:24
 C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

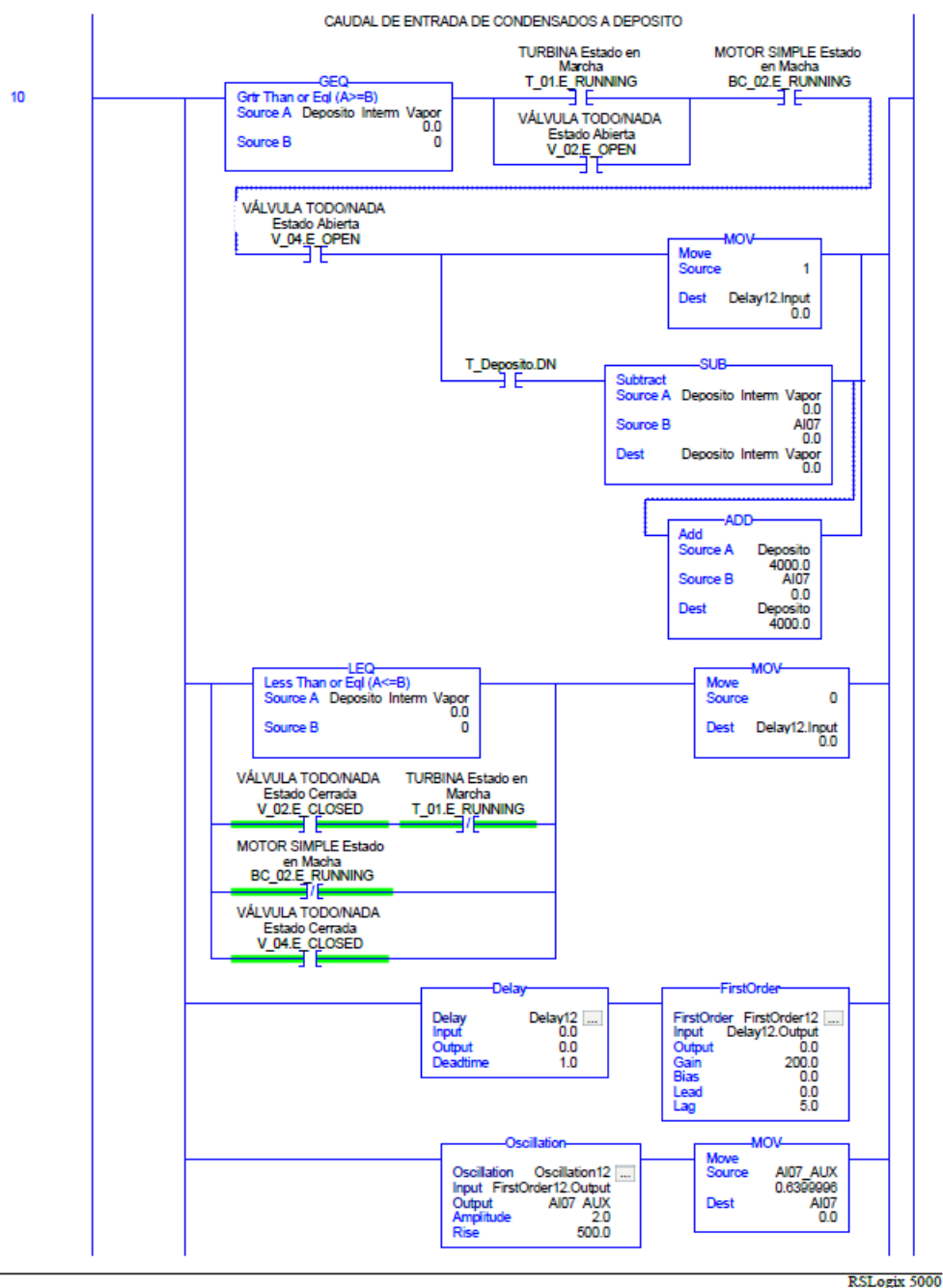


RSLogix 5000



_70_Circuito_Vapor - Ladder Diagram
TFG: Simulacion: Planta_Simulacion
Total number of rungs in routine: 11

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25/09/2018 2:16:24
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

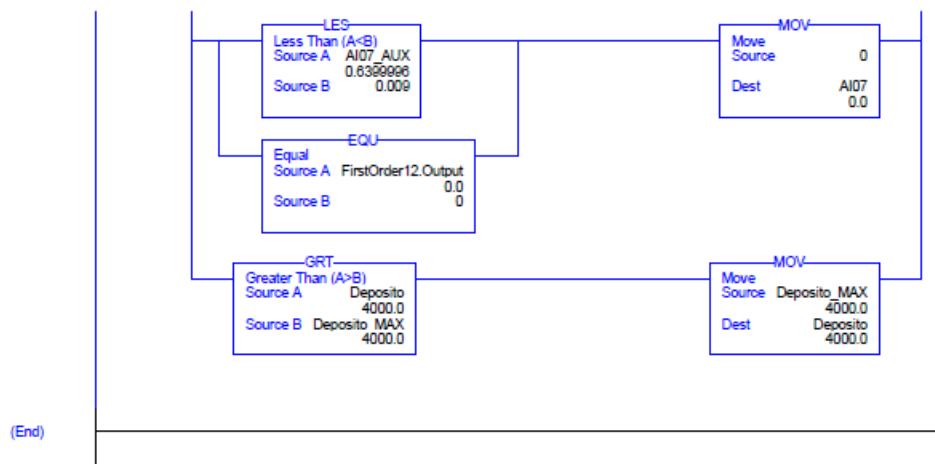


RSLogix 5000

_70_Circuito_Vapor - Ladder Diagram
TFG: Simulacion Planta_Simulacion
Total number of rungs in routine: 11

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



RSLogix 5000



COMBUSTIBLE AUXILIAR

_80_Combustible_AUX - Ladder Diagram

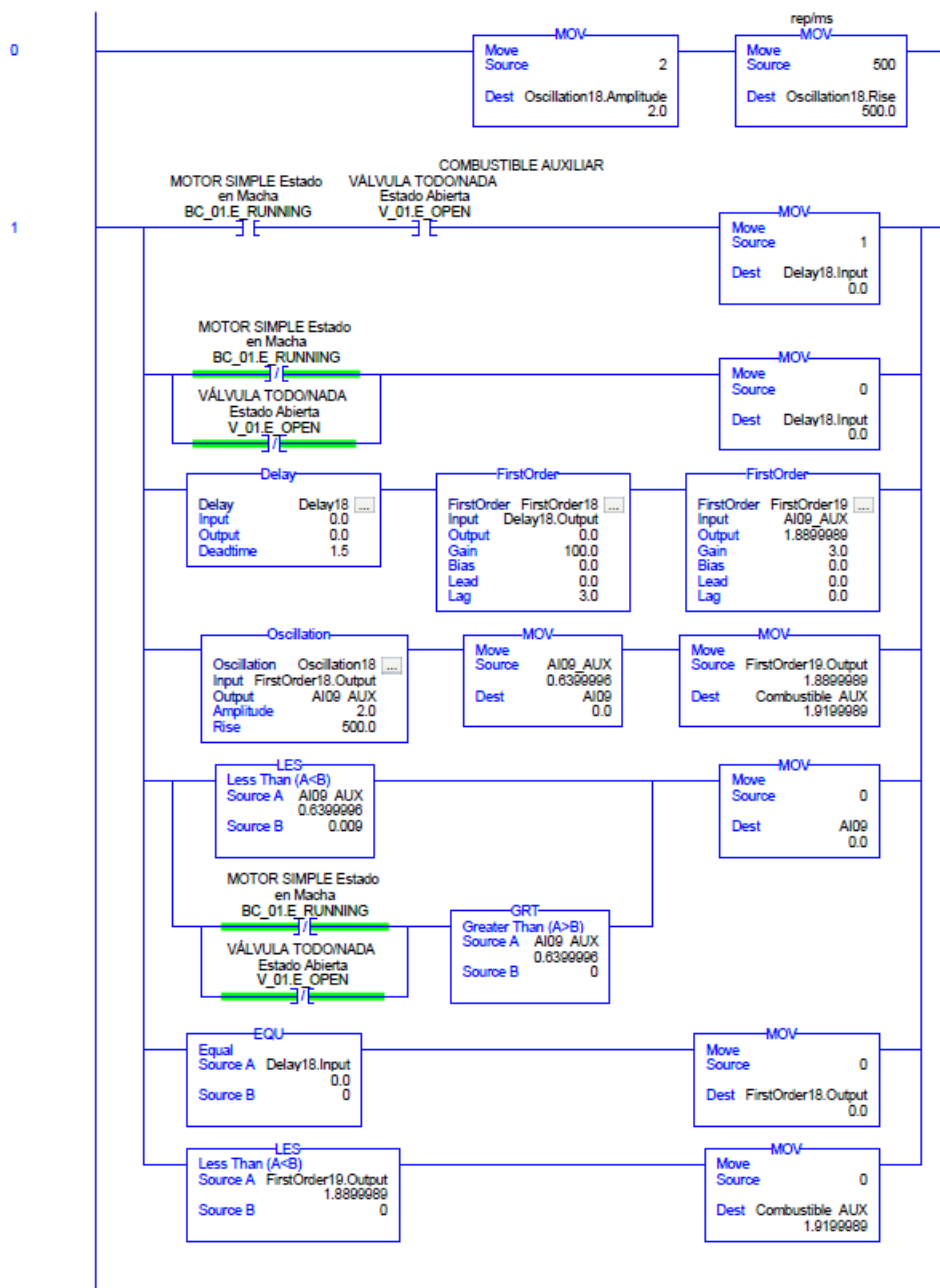
TFG: Simulacion: Planta_Simulacion

Total number of rungs in routine: 2

Page 1

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

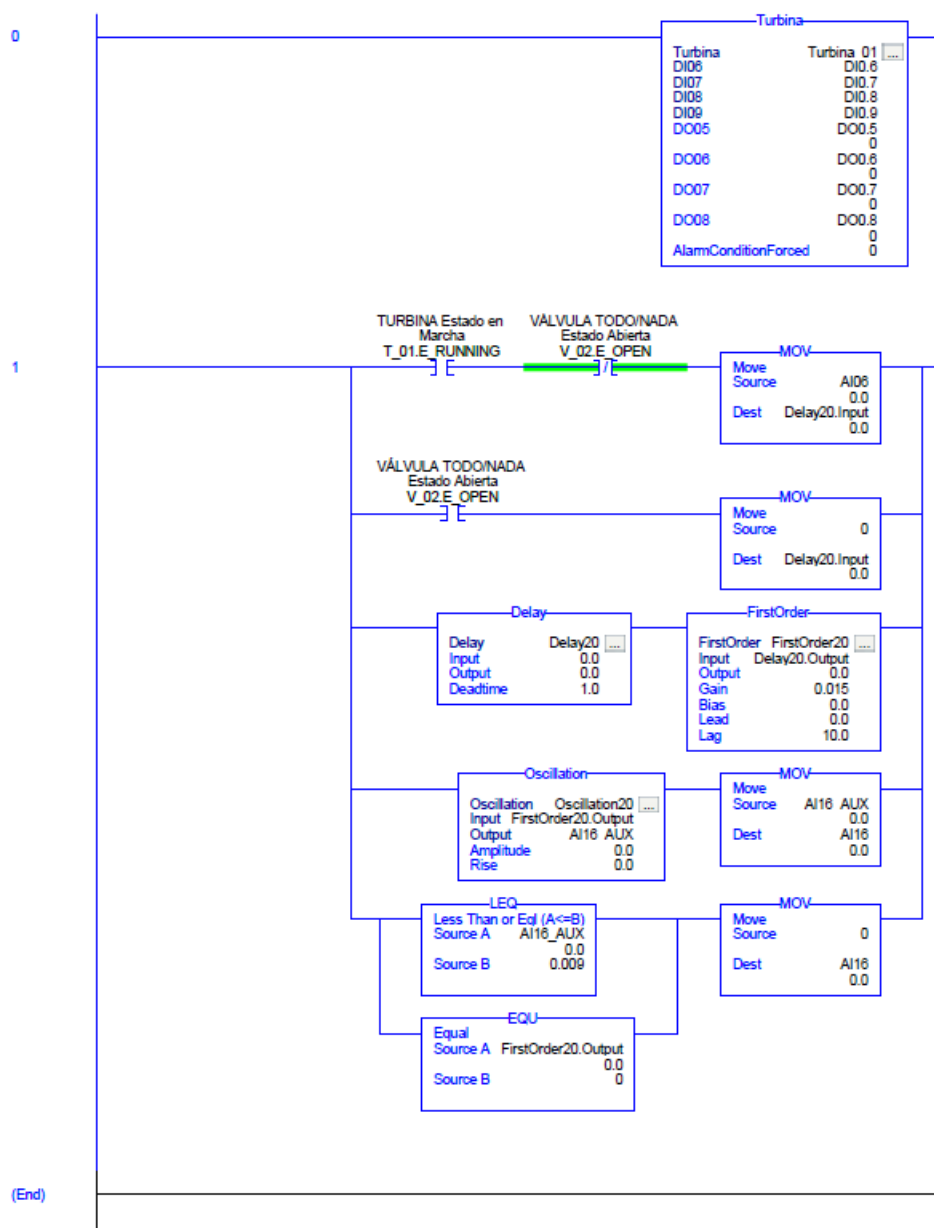


RSLogix 5000

TURBINA

_90_Turbina - Ladder Diagram
TFG: Simulacion Planta Simulacion
Total number of rungs in routine: 2

Page 1
25/09/2018 2:17:10
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



RSLogix 5000

1.1.4. Add-On

COMPRESOR SOPLADOR

TFG - Add-On Instruction Tag Listing

Page 1

TFG (Controller)

17/09/2018 21:48:19

Data Context: CentrifugalCompressor <definition>

C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

Show: All Tags
Sort by: Name

Name	Usage	Data Type	Description
AI	Output	REAL	
AI11	InOut	REAL	
AlarmConditionForced	Input	BOOL	
DI01	InOut	BOOL	Running
DI02	InOut	BOOL	Alarm
DI03	InOut	BOOL	Cool
DI04	InOut	BOOL	Oil
DO01	Input	BOOL	Start
DO02	Input	BOOL	Reset
DO03	Input	BOOL	YCool
DO04	Input	BOOL	YOil
EnableIn	Input	BOOL	Enable Input - System Defined Parameter
EnableOut	Output	BOOL	Enable Output - System Defined Parameter
Oscillation	Local	Oscillation	
POWER	Local	REAL	
T_Cool	Local	TIMER	
T_Oil	Local	TIMER	
T_Reset	Local	TIMER	
T_Run	Local	TIMER	

RSLogix 5000

Logic - Ladder Diagram

TFG-Add-On Instructions:CentrifugalCompressor

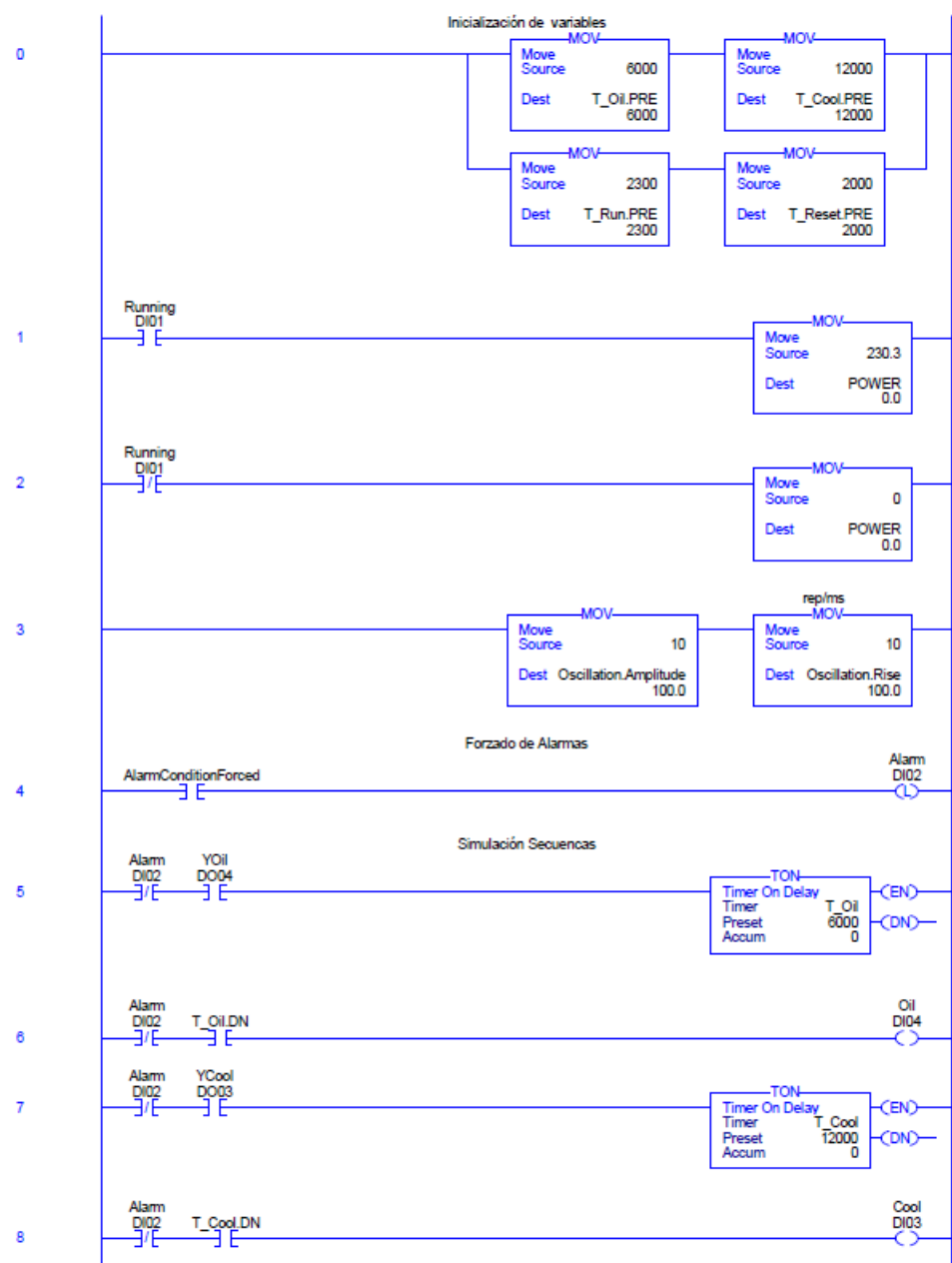
Total number of rungs in routine: 15

Data Context: CentrifugalCompressor <definition>

Page 1

17/09/2018 21:51:11

C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



RSLogix 5000

Logic - Ladder Diagram

TFG-Add-On Instructions: CentrifugalCompressor

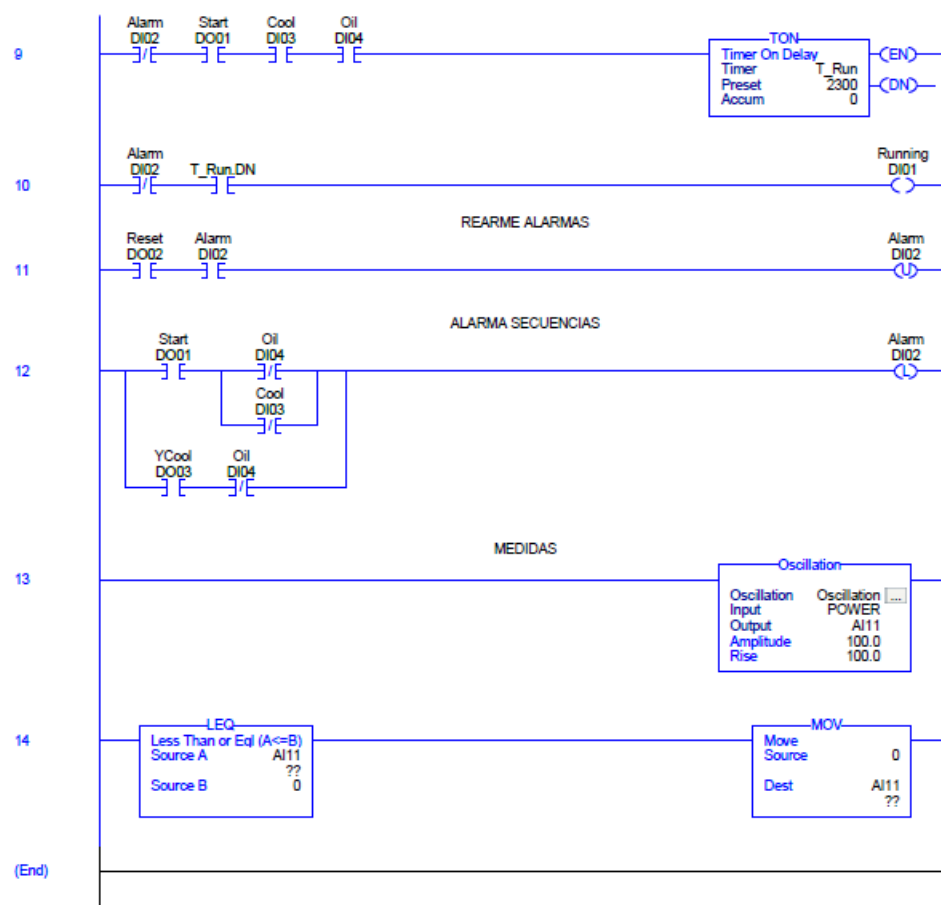
Total number of rungs in routine: 15

Data Context: CentrifugalCompressor <definition>

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17/09/2018 21:51:15

C:\Documents and Settings\Administrador\Escritorio\TFG\TFG-ACD



RSLogix 5000

DELAY

TFG - Add-On Instruction Tag Listing
TFG (Controller)
Data Context: Delay <definition>

Page 1
25/09/2018 16:42:49
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

Show: All Tags
Sort by: Name

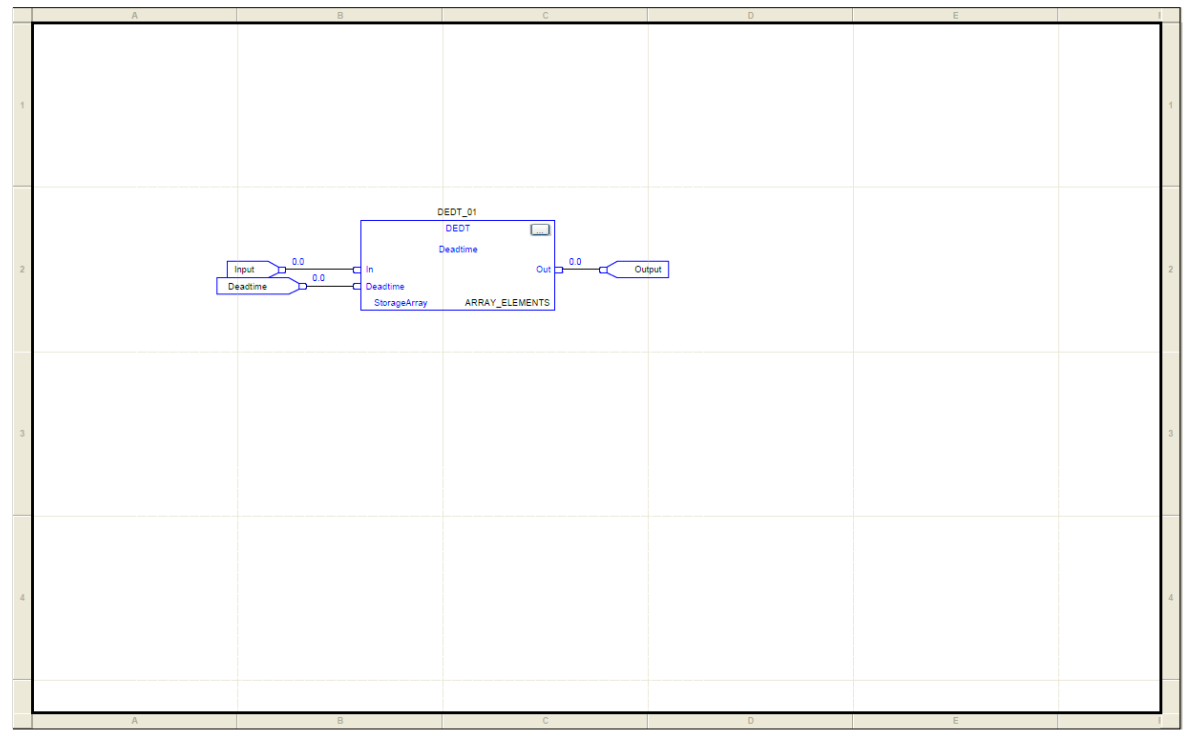
Name	Usage	Data Type	Description
[-] ARRAY_ELEMENTS	Local	REAL[5000]	
Deadtime	Input	REAL	
[-] DEDT_01	Local	DEADTIME	
EnableIn	Input	BOOL	Enable Input - System Defined Parameter
EnableOut	Output	BOOL	Enable Output - System Defined Parameter
Input	Input	REAL	
Output	Output	REAL	

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Logic - Function Block Diagram
TFG-Add-On Instructions:Delay
1 of 1 total sheets in routine
Data Context: Delay <-definition>

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25/09/2018 16:43:20
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RSLinx 5000

FIRST ORDER

TFG - Add-On Instruction Tag Listing
TFG (Controller)
Data Context: FirstOrder <definition>

Page 1
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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG ACD

Show: All Tags
Sort by: Name

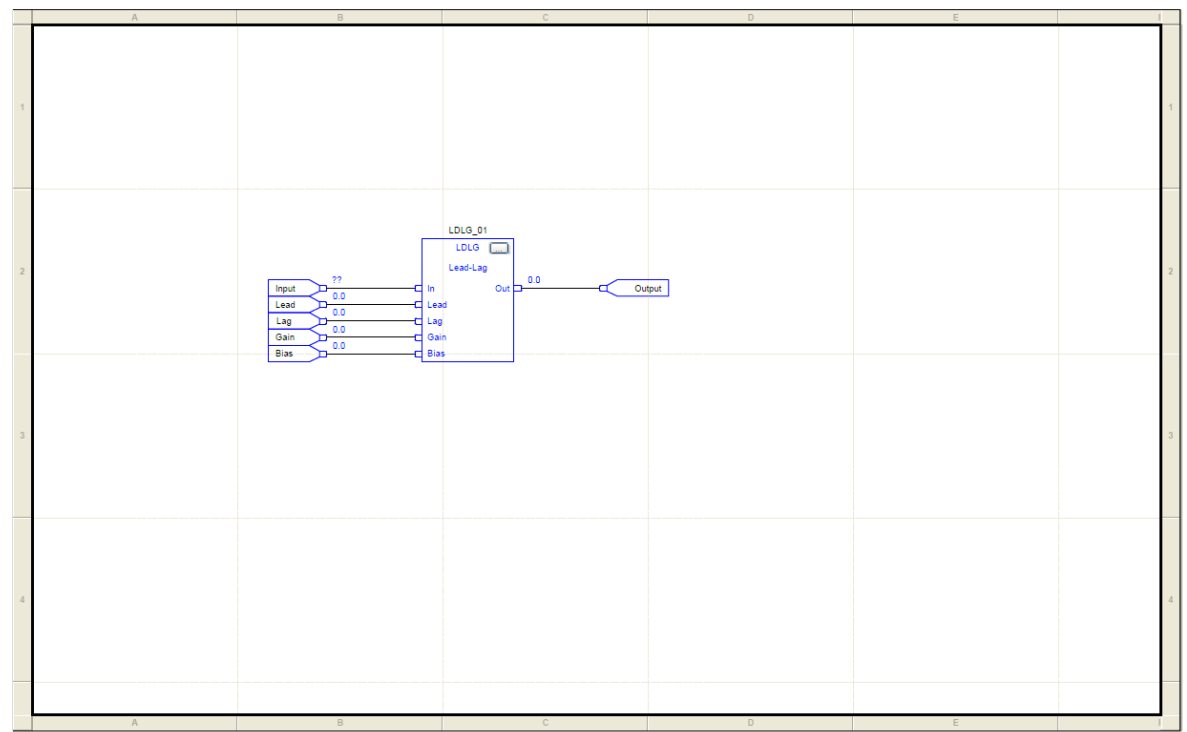
Name	Usage	Data Type	Description
Bias	Input	REAL	
EnableIn	Input	BOOL	Enable Input - System Defined Parameter
EnableOut	Output	BOOL	Enable Output - System Defined Parameter
Gain	Input	REAL	
Input	InOut	REAL	
Lag	Input	REAL	
LDLG_01	Local	LEAD_LAG	
Lead	Input	REAL	
Output	Output	REAL	

RSLogix 5000



Logic - Function Block Diagram
TFG-Add-On Instructions-FirstOrder
1 of 1 total sheets in routine
Data Context: FirstOrder <definition>

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MOTOR

TFG - Add-On Instruction Tag Listing

TFG (Controller)

Data Context: Motor <definition>

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Show: All Tags
Sort by: Name

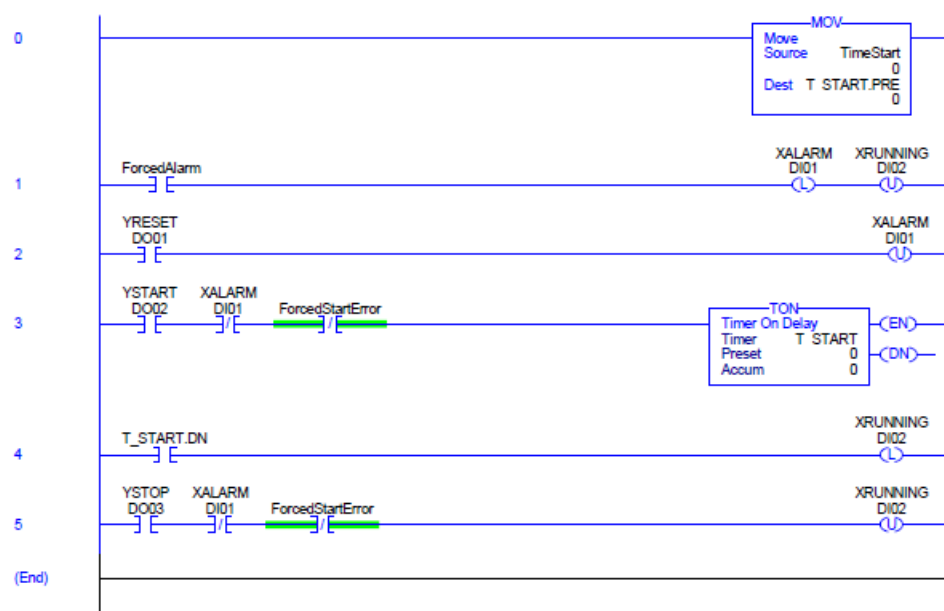
Name	Usage	Data Type	Description
DI01	InOut	BOOL	XALARM
DI02	InOut	BOOL	XRUNNING
DO01	Input	BOOL	YRESET
DO02	Input	BOOL	YSTART
DO03	Input	BOOL	YSTOP
EnableIn	Input	BOOL	Enable Input - System Defined Parameter
EnableOut	Output	BOOL	Enable Output - System Defined Parameter
ForcedAlarm	Input	BOOL	
ForcedStartError	Input	BOOL	
T_START	Local	TIMER	
TimeStart	Input	DINT	

RSLogix 5000



Logic - Ladder Diagram
 TFG-Add-On Instructions:Motor
 Total number of rungs in routine: 6
 Data Context: Motor <definition>

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 C:\Documents and Settings\Administrador\Escritorio\TFG\TFG-ACD



RSLogix 5000

VÁLVULA TODO/NADA

TFG - Add-On Instruction Tag Listing
TFG (Controller)
Data Context: OnOffValve <definition>

Page 1
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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG ACD

Show: All Tags
Sort by: Name

Name	Usage	Data Type	Description
DI01	InOut	BOOL	XOPEN
DI02	InOut	BOOL	XCLOSED
DI03	InOut	BOOL	XALARM
DO01	Input	BOOL	YOPEN
DO02	Input	BOOL	YCLOSE
DO03	Input	BOOL	YRESET
EnableIn	Input	BOOL	Enable Input - System Defined Parameter
EnableOut	Output	BOOL	Enable Output - System Defined Parameter
ForcedAlarm	Input	BOOL	
ForcedSwitchError	Input	BOOL	
[H]_T_CLOSE	Local	TIMER	
[H]_T_OPEN	Local	TIMER	
[H]_TimeClose	Input	DINT	
[H]_TimeOpen	Input	DINT	

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Logic - Ladder Diagram

TFG-Add-On Instructions: OnOffValve

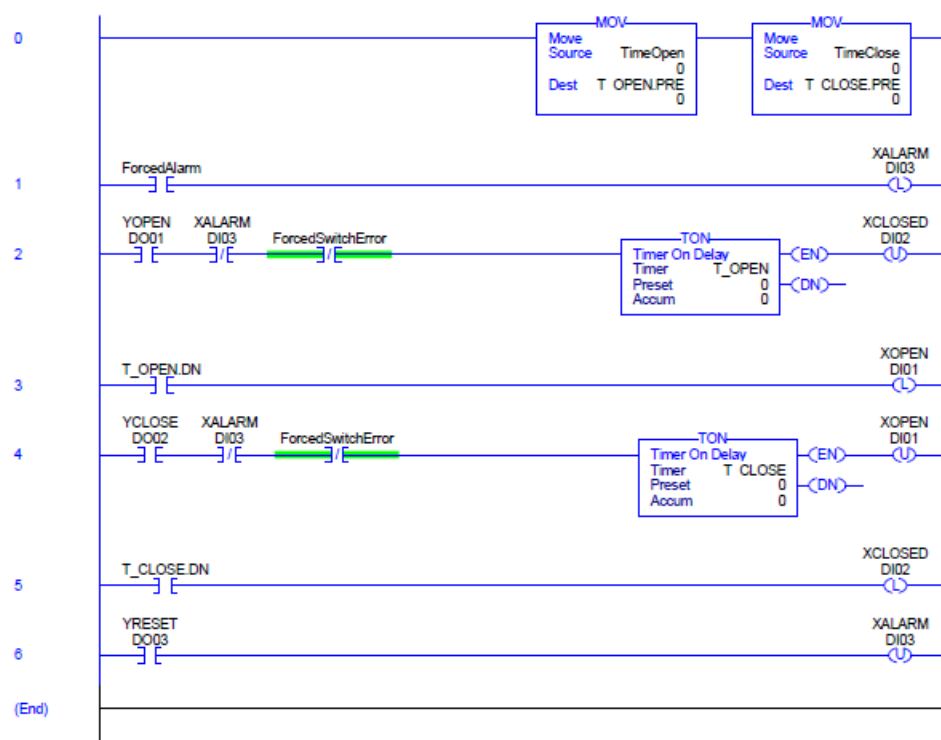
Total number of rungs in routine: 7

Data Context: OnOffValve <definition>

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG-ACD



RSLogix 5000

OSCILLATION

TFG - Add-On Instruction Tag Listing

TFG (Controller)

Data Context: Oscillation <definition>

Page 1

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG ACD

Show: All Tags

Sort by: Name

Name	Usage	Data Type	Description
Amplitude	Input	REAL	
B_ONS	Local	BOOL	
Band	Local	REAL	
Delta	Local	REAL	
EnableIn	Input	BOOL	Enable Input - System Defined Parameter
EnableOut	Output	BOOL	Enable Output - System Defined Parameter
H_Value	Local	REAL	
Input	InOut	REAL	
L_Value	Local	REAL	
Output	InOut	REAL	
Rise	Input	REAL	rep/ms
T_Rise	Local	TIMER	
Temp	Local	REAL	
Temp_Input	Local	REAL	
UpDown	Local	BOOL	

RSLogix 5000



Logic - Ladder Diagram

TFG-Add-On Instructions: Oscillation

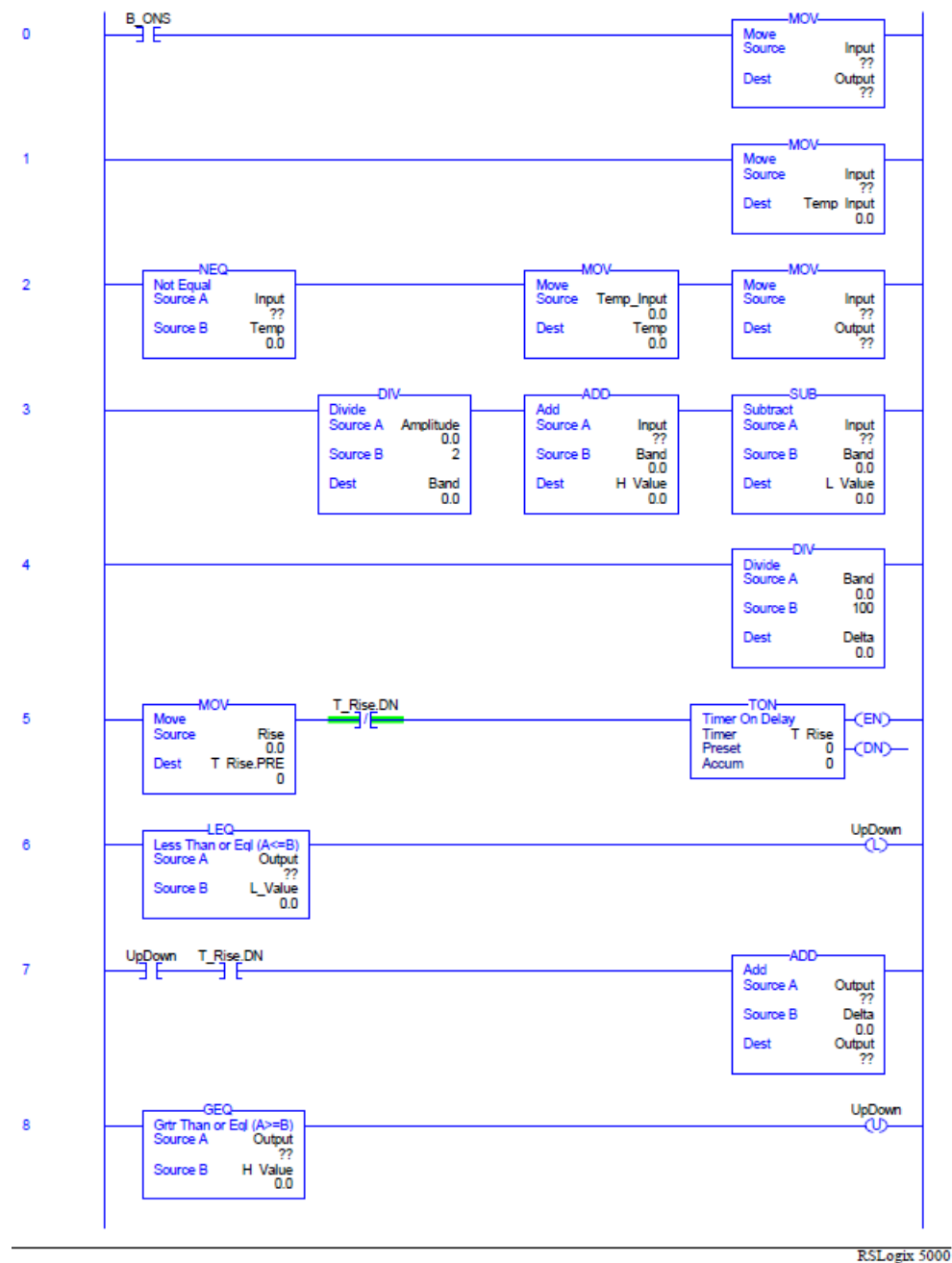
Total number of rungs in routine: 10

Data Context: Oscillation <definition>

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



RSLogix 5000

Logic - Ladder Diagram

TFG-Add-On Instructions: Oscillation

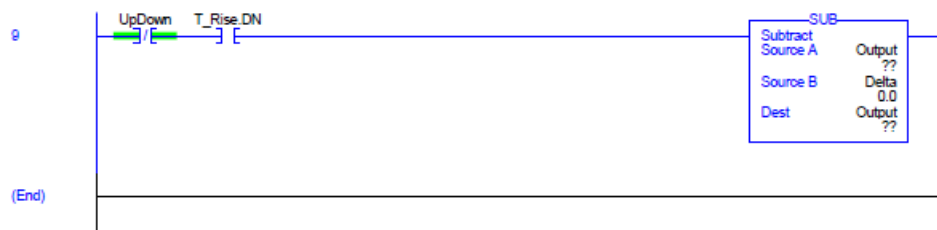
Total number of rungs in routine: 10

Data Context: Oscillation <definition>

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



RSLogix 5000



TURBINA

TFG - Add-On Instruction Tag Listing

Page 1

TFG (Controller)

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Data Context: Turbina <definition>

C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

Show: All Tags
Sort by: Name

Name	Usage	Data Type	Description
AlarmConditionForced	Input	BOOL	
DI06	InOut	BOOL	Running
DI07	InOut	BOOL	Alarm
DI08	InOut	BOOL	Cool
DI09	InOut	BOOL	Oil
DO05	Input	BOOL	Start
DO06	Input	BOOL	Reset
DO07	Input	BOOL	YCool
DO08	Input	BOOL	YOil
EnableIn	Input	BOOL	Enable Input - System Defined Parameter
EnableOut	Output	BOOL	Enable Output - System Defined Parameter
Oscillation	Local	Oscillation	
POWER	Local	REAL	
Siempre_OFF	Local	BOOL	
T_Cool	Local	TIMER	
T_Oil	Local	TIMER	
T_Reset	Local	TIMER	
T_Run	Local	TIMER	

RSLogix 5000

Logic - Ladder Diagram

TFG-Add-On Instructions:Turbina

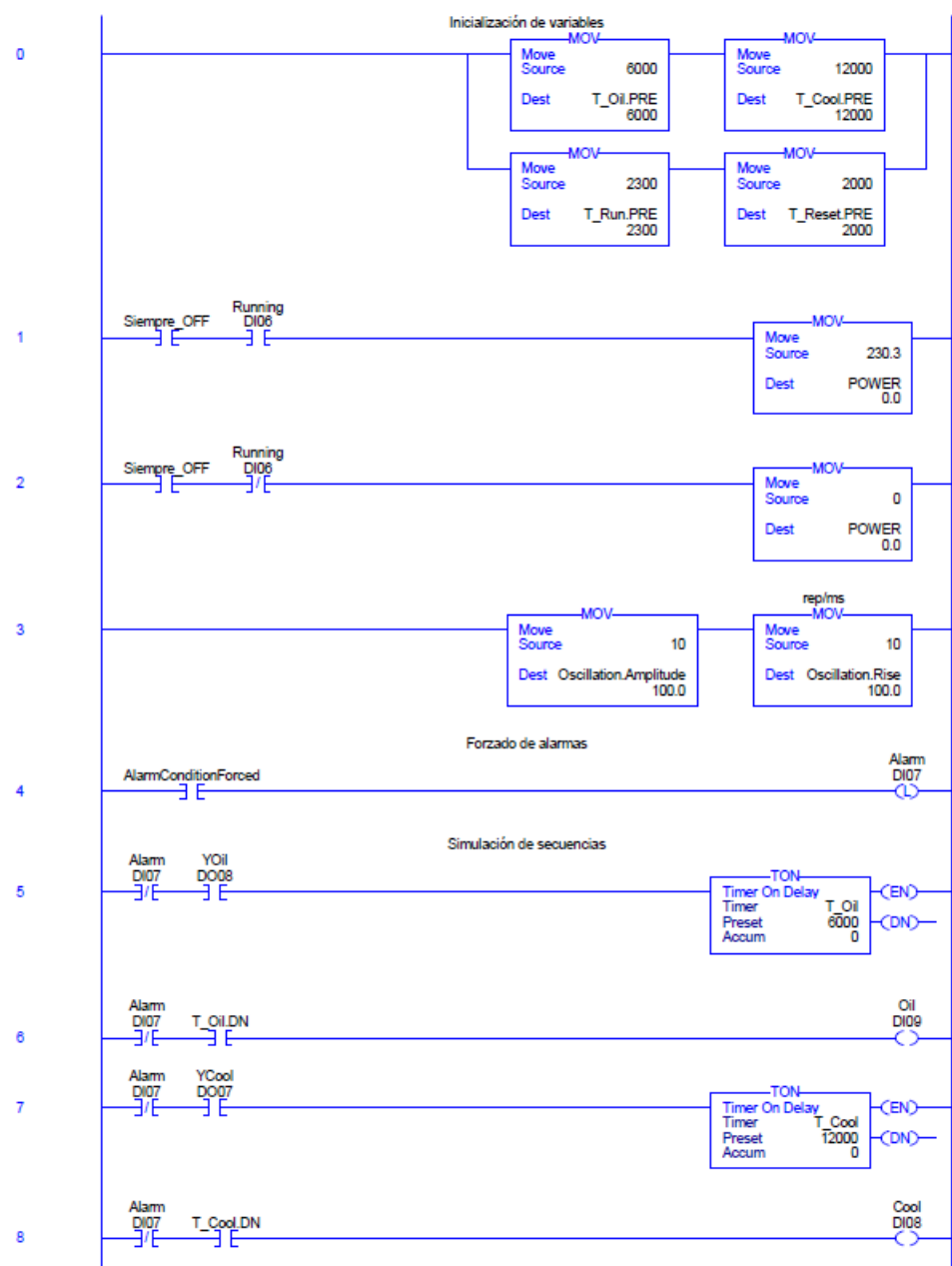
Total number of rungs in routine: 13

Data Context: Turbina <definition>

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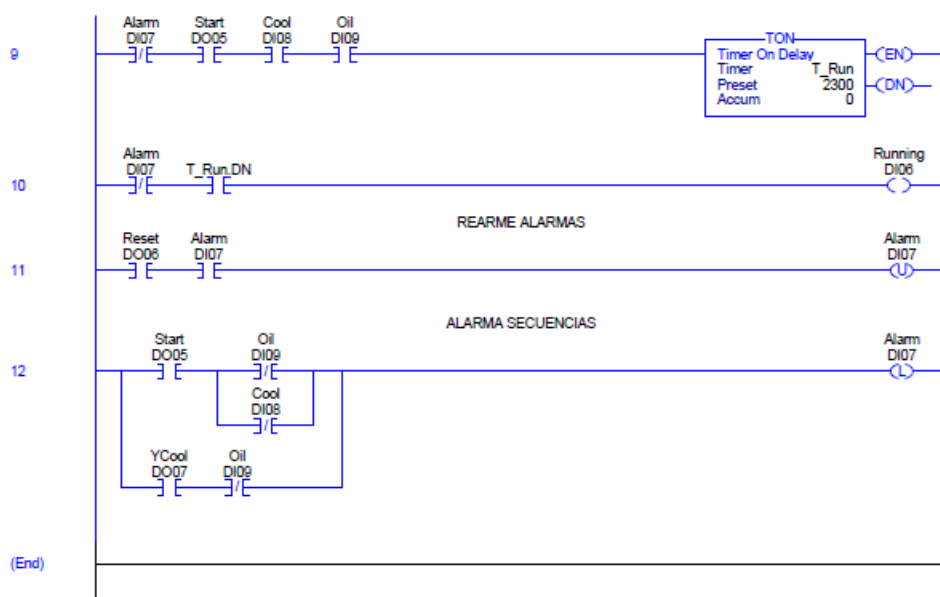
C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD



RSLogix 5000

Logic - Ladder Diagram
 TFG-Add-On Instructions:Turbina
 Total number of rungs in routine: 13
 Data Context: Turbina <definition>

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RSLogix 5000

1.1.5. Data Types

COMPRESOR SOPLADOR

TFG - User-Defined Data Type
TFG (Controller)Page 1
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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

Data type Name: CCO

Description:
COMPRESOR CENTRÍFUGO (SOPLADOR)

Size: 76 byte(s)

Name	Data Type	Style	Description	External Access
E_ALARM	BOOL	Decimal	Estado con Alarmas	Read/Write
E_COOLOK	BOOL	Decimal	Estado Circuito de Frio OK	Read/Write
E_AUTOMATIC	BOOL	Decimal	Estado en Automático	Read/Write
E_OSERVICE	BOOL	Decimal	Estado en Fuera de Servicio	Read/Write
E_MANUAL	BOOL	Decimal	Estado en Manual	Read/Write
E_RUNNING	BOOL	Decimal	Estado en Marcha	Read/Write
E_SERVICE	BOOL	Decimal	Estado en Servicio	Read/Write
E_READY	BOOL	Decimal	Estado Preparado para Funcionar	Read/Write
E_OILOK	BOOL	Decimal	Estado Presión Oil OK	Read/Write
POWER	REAL	Float	Potencia Eléctrica	Read/Write
RHOURS	DINT	Decimal	Horas de Marcha	Read/Write
THOURS	DINT	Decimal	Horas Totales	Read/Write
C_STOP	BOOL	Decimal	Orden de Parada Compresor	Read/Write
C_START	BOOL	Decimal	Orden Marcha Compresor	Read/Write
C_AUTOMATIC	BOOL	Decimal	Orden Automático	Read/Write
C_MANUAL	BOOL	Decimal	Orden Manual	Read/Write
C_OSERVICE	BOOL	Decimal	Orden de Fuera de Servicio	Read/Write
C_RUNNING	BOOL	Decimal	Orden de Macha Compresor	Read/Write
C_RESET	BOOL	Decimal	Orden de Reset	Read/Write
C_SERVICE	BOOL	Decimal	Orden de Servicio	Read/Write
C_COOL	BOOL	Decimal	Orden Marcha Circuito de Frio	Read/Write
C_OIL	BOOL	Decimal	Orden Marcha Bomba de Aceite	Read/Write
C_STOP_AUTO	BOOL	Decimal	Orden Parada Compresor en Automático	Read/Write
C_COOL_AUTO	BOOL	Decimal	Orden Marcha Circuito de Frio en Automático (MONOESTABLE)	Read/Write
C_OIL_AUTO	BOOL	Decimal	Orden Marcha Bomba de Aceite en Automático (MONOESTABLE)	Read/Write
C_START_AUTO	BOOL	Decimal	Orden Marcha Compresor en Automático (MONOESTABLE)	Read/Write
XPOWER	REAL	Float	Señal Analógica de entrada potencia eléctrica	Read/Write
XRUNNING	BOOL	Decimal	Señal de Entrada Marcha Compresor	Read/Write
XALARM	BOOL	Decimal	Señal de Entrada Alarma	Read/Write
XCOOL	BOOL	Decimal	Señal de Entrada Circuito de Frio OK	Read/Write
XOIL	BOOL	Decimal	Señal de Entrada Presión Oil OK	Read/Write
YSTART	BOOL	Decimal	Señal de Salida Marcha Compresor	Read/Write
YRESET	BOOL	Decimal	Señal de Salida Reset Alarmas	Read/Write
YCOOL	BOOL	Decimal	Señal de Salida Marcha Circuito de Frio	Read/Write

RSLogix 5000



TFG - User-Defined Data Type
TFG (Controller)

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

Name	Data Type	Style	Description	External Access
YOIL	BOOL	Decimal	Señal de Salida Marcha Bomba de Aceite	Read/Write
T_HRUNNING	TIMER		Temporizador Horas de Marcha	Read/Write
T_HTOTAL	TIMER		Temporizador Horas Totales	Read/Write
C_HRUNNING	COUNTER		Contador Horas de Marcha	Read/Write
C_HTOTAL	COUNTER		Contador Horas Totales	Read/Write

RSLogix 5000

VÁLVULA REGULADORA

TFG - User-Defined Data Type
TFG (Controller)

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG ACD

Data type Name: FCV

Description:
VÁLVULA REGULADORA

Size: 64 byte(s)

Name	Data Type	Style	Description	External Access
A_POSITION	BOOL	Decimal	Alarma Posición	Read/Write
C_POSITION	REAL	Float	Consigna de Posición	Read/Write
E_ALARM	BOOL	Decimal	Estado con Alarmas	Read/Write
E_AUTOMATIC	BOOL	Decimal	Estado en Automático	Read/Write
E_OSERVICE	BOOL	Decimal	Estado en Fuera de Servicio	Read/Write
E_MANUAL	BOOL	Decimal	Estado en Manual	Read/Write
E_SERVICE	BOOL	Decimal	Estado en Servicio	Read/Write
C_POSITION_AUTO	REAL	Float	Consigna de Posición en Automático	Read/Write
C_AUTOMATIC	BOOL	Decimal	Orden de Automático	Read/Write
C_OSERVICE	BOOL	Decimal	Orden de Fuera de Servicio	Read/Write
C_MANUAL	BOOL	Decimal	Orden de Manual	Read/Write
C_SERVICE	BOOL	Decimal	Orden En Servicio	Read/Write
C_RESET	BOOL	Decimal	Orden Fuera de Servicio	Read/Write
YPOSITION	REAL	Float	Señal de Salida Posición	Read/Write
<input checked="" type="checkbox"/> T_CLOSE	TIMER		Temporizador de Cerrado	Read/Write
<input checked="" type="checkbox"/> T_OPEN	TIMER		Temporizador de Abierto	Read/Write
<input checked="" type="checkbox"/> T_RESET	TIMER		Temporizador de Reset	Read/Write
YRESET	BOOL	Decimal	Señal de Salida de Reset	Read/Write

RSLogix 5000



GENERADOR

TFG - User-Defined Data Type
TFG (Controller)

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C:\Documents and Settings\Administrador\Escritorio\TFG\TFG.ACD

Data type Name: G

Description:
GENERADOR

Size: 16 byte(s)

Name	Data Type	Style	Description	External Access
E_ALARM	BOOL	Decimal	Estado con Alarmas	Read/Write
E_AUTOMATIC	BOOL	Decimal	Estado en Automático	Read/Write
E_OSERVICE	BOOL	Decimal	Estado en Fuera de Servicio	Read/Write
E_MANUAL	BOOL	Decimal	Estado en Manual	Read/Write
E_SERVICE	BOOL	Decimal	Estado en Servicio	Read/Write
E_RUNNING	BOOL	Decimal	Estado en Macha Generador	Read/Write
C_STOP_AUTO	BOOL	Decimal	Orden Parada Generador en Automático	Read/Write
C_STOP	BOOL	Decimal	Orden Parada Generador	Read/Write
C_AUTOMATIC	BOOL	Decimal	Orden de Automático	Read/Write
C_MANUAL	BOOL	Decimal	Orden de Manual	Read/Write
C_OSERVICE	BOOL	Decimal	Orden de Fuera de Servicio	Read/Write
C_RESET	BOOL	Decimal	Orden de Reset	Read/Write
C_SERVICE	BOOL	Decimal	Orden de Servicio	Read/Write
C_START	BOOL	Decimal	Orden Marcha	Read/Write
C_START_AUTO	BOOL	Decimal	Orden Marcha en Automático	Read/Write
XALARM	BOOL	Decimal	Señal de entrada Alarma	Read/Write
XRUNNING	BOOL	Decimal	Señal de entrada Marcha Generador	Read/Write
XPOWER	REAL	Float	Señal Analógica Potencia (kW)	Read/Write
YRESET	BOOL	Decimal	Señal de Salida Reset Alarmas	Read/Write
YSTART	BOOL	Decimal	Señal de Salida Marcha Generador	Read/Write
POWER	REAL	Float	Potencia Eléctrica	Read/Write

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TRANSMISOR INDICADOR

TFG - User-Defined Data Type
TFG (Controller)

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Data type Name: IT

Description:
TRANSMISOR INDICADOR

Size: 16 byte(s)

Name	Data Type	Style	Description	External Access
E_ALARM	BOOL	Decimal	Alarma error equipo	Read/Write
MINS	REAL	Float	Medida	Read/Write
XMINS	REAL	Float	Señal de Medida	Read/Write
XALARM	BOOL	Decimal	Alarma error equipo	Read/Write

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MOTOR

TFG - User-Defined Data Type
TFG (Controller)

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Data type Name: M

Description:
MOTOR SIMPLE

Size: 28 byte(s)

Name	Data Type	Style	Description	External Access
E_ALARM	BOOL	Decimal	Estado con Alarmas	Read/Write
E_AUTOMATIC	BOOL	Decimal	Estado en Automático	Read/Write
E_OSERVICE	BOOL	Decimal	Estado en Fuera de Servicio	Read/Write
E_MANUAL	BOOL	Decimal	Estado en Manual	Read/Write
E_SERVICE	BOOL	Decimal	Estado en Servicio	Read/Write
E_RUNNING	BOOL	Decimal	Estado en Macha	Read/Write
C_STOP_AUT	BOOL	Decimal	Orden Parada en Automático	Read/Write
C_STOP	BOOL	Decimal	Orden Parada	Read/Write
C_AUTOMATIC	BOOL	Decimal	Orden de Automático	Read/Write
C_MANUAL	BOOL	Decimal	Orden de Manual	Read/Write
C_OSERVICE	BOOL	Decimal	Orden de Fuera de Servicio	Read/Write
C_RESET	BOOL	Decimal	Orden de Reset	Read/Write
C_SERVICE	BOOL	Decimal	Orden de Servicio	Read/Write
C_START	BOOL	Decimal	Orden Marcha	Read/Write
C_START_AUT	BOOL	Decimal	Orden Marcha en Automático	Read/Write
XALARM	BOOL	Decimal	Señal de entrada Alarma	Read/Write
XRUNNING	BOOL	Decimal	Señal de entrada Marcha Motor	Read/Write
YRESET	BOOL	Decimal	Señal de Salida Reset Alarmas	Read/Write
YSTART	BOOL	Decimal	Señal de Salida Marcha Motor	Read/Write
YSTOP	BOOL	Decimal	Señal de Salida Parada Motor	Read/Write
T_RESET	TIMER		Temporizador de pulso de Reset	Read/Write
T_START	TIMER		Temporizador de Alarma Confirmación	Read/Write

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TURBINA

TFG - User-Defined Data Type
TFG (Controller)

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Data type Name: T

Description:
TURBINA

Size: 92 byte(s)

Name	Data Type	Style	Description	External Access
E_ALARM	BOOL	Decimal	Estado con Alarmas	Read/Write
E_COOLOK	BOOL	Decimal	Estado Circuito de Refrigeración OK	Read/Write
E_AUTOMATIC	BOOL	Decimal	Estado en Automático	Read/Write
E_OSERVICE	BOOL	Decimal	Estado en Fuera de Servicio	Read/Write
E_MANUAL	BOOL	Decimal	Estado en Manual	Read/Write
E_RUNNING	BOOL	Decimal	Estado en Marcha	Read/Write
E_SERVICE	BOOL	Decimal	Estado en Servicio	Read/Write
E_READY	BOOL	Decimal	Estado Preparado para Funcionar	Read/Write
E_OILOK	BOOL	Decimal	Estado Presión Oil OK	Read/Write
RPM	REAL	Float	Velocidad de Rotación (RPM)	Read/Write
BAR	REAL	Float	Presión (BAR)	Read/Write
TEMP	REAL	Float	Temperatura (°C)	Read/Write
RHOURS	DINT	Decimal	Horas de Marcha	Read/Write
THOURS	DINT	Decimal	Horas Totales	Read/Write
C_STOP	BOOL	Decimal	Orden de Parada Turbina	Read/Write
C_START	BOOL	Decimal	Orden Marcha Turbina	Read/Write
C_AUTOMATIC	BOOL	Decimal	Orden Automático	Read/Write
C_MANUAL	BOOL	Decimal	Orden Manual	Read/Write
C_OSERVICE	BOOL	Decimal	Orden de Fuera de Servicio	Read/Write
C_RUNNING	BOOL	Decimal	Orden de Marcha Turbina	Read/Write
C_RESET	BOOL	Decimal	Orden de Reset	Read/Write
C_SERVICE	BOOL	Decimal	Orden de Servicio	Read/Write
C_COOL	BOOL	Decimal	Orden Marcha Circuito de Refrigeración	Read/Write
C_OIL	BOOL	Decimal	Orden Marcha Bomba de Aceite	Read/Write
C_STOP_AUTO	BOOL	Decimal	Orden Parada Turbina en Automático	Read/Write
C_COOL_AUTO	BOOL	Decimal	Orden Marcha Circuito de Refrigeración en Automático (MONOESTABLE)	Read/Write
C_OIL_AUTO	BOOL	Decimal	Orden Marcha Bomba de Aceite en Automático (MONOESTABLE)	Read/Write
C_START_AUTO	BOOL	Decimal	Orden Marcha Turbina en Automático (MONOESTABLE)	Read/Write
XVELOCIDAD	REAL	Float	Señal Analógica de Velocidad de rotación (RPM)	Read/Write
XBAR	REAL	Float	Señal Analógica de Presión (BAR)	Read/Write
XTEMP	REAL	Float	Señal Analógica Temperatura (°C)	Read/Write
XSENS	BOOL	Decimal	Señal Sensor Detector de desplazamientos del Eje	Read/Write
XRUNNING	BOOL	Decimal	Señal de Entrada Marcha Turbina	Read/Write
XALARM	BOOL	Decimal	Señal de Entrada Alarma	Read/Write

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VÁLVULA TODO/NADA

TFG - User-Defined Data Type
TFG (Controller)

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Data type Name: V

Description:
VÁLVULA TODO/NADA

Size: 40 byte(s)

Name	Data Type	Style	Description	External Access
C_AUTOMATIC	BOOL	Decimal	Orden de Automático	Read/Write
C_CLOSE	BOOL	Decimal	Orden Cerrar	Read/Write
C_CLOSE_AUT	BOOL	Decimal	Orden Cerrar en Automático	Read/Write
C_MANUAL	BOOL	Decimal	Orden Manual	Read/Write
C_OPEN	BOOL	Decimal	Orden Abrir	Read/Write
C_OPEN_AUT	BOOL	Decimal	Orden Abrir en Automático	Read/Write
C_RESET	BOOL	Decimal	Orden de Reset	Read/Write
C_FSERVEI	BOOL	Decimal	Orden Fuera de Servicio	Read/Write
C_SERVEI	BOOL	Decimal	Orden En Servicio	Read/Write
E_ALARM	BOOL	Decimal	Estado con Alarmas	Read/Write
E_AUTOMATIC	BOOL	Decimal	Estado en Automático	Read/Write
E_CLOSED	BOOL	Decimal	Estado Cerrada	Read/Write
E_MANUAL	BOOL	Decimal	Estado en Manual	Read/Write
E_OPEN	BOOL	Decimal	Estado Abierta	Read/Write
E_OSERVICE	BOOL	Decimal	Estado en Fuera de Servicio	Read/Write
E_SERVICE	BOOL	Decimal	Estado en Servicio	Read/Write
A_POSICIO	BOOL	Decimal	Alarma Posición	Read/Write
E_FCO	BOOL	Decimal	Estado Final de Carrera Abierta	Read/Write
E_FCT	BOOL	Decimal	Estado Final de Carrera Cerrada	Read/Write
XOPEN	BOOL	Decimal	Señal Final Carrera Abierta	Read/Write
XCLOSED	BOOL	Decimal	Señal Final Carrera Cerrada	Read/Write
XALARM	BOOL	Decimal	Señal Alarma Eléctrica	Read/Write
YOPEN	BOOL	Decimal	Señal Orden de Abrir	Read/Write
YCLOSE	BOOL	Decimal	Señal Orden de Cerrar	Read/Write
YRESET	BOOL	Decimal	Señal Reset	Read/Write
T_CLOSE	TIMER		Temporizador Abrir	Read/Write
T_OPEN	TIMER		Temporizador Cerrar	Read/Write
T_RESET	TIMER		Temporizador Señal de Reset	Read/Write

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